

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for scanning. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of scanning are checked below.

L'Institut a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation sont indiqués ci-dessous.

- | | | | |
|-------------------------------------|---|-------------------------------------|---|
| <input type="checkbox"/> | Coloured covers /
Couverture de couleur | <input type="checkbox"/> | Coloured pages / Pages de couleur |
| <input type="checkbox"/> | Covers damaged /
Couverture endommagée | <input type="checkbox"/> | Pages damaged / Pages endommagées |
| <input type="checkbox"/> | Covers restored and/or laminated /
Couverture restaurée et/ou pelliculée | <input type="checkbox"/> | Pages restored and/or laminated /
Pages restaurées et/ou pelliculées |
| <input type="checkbox"/> | Cover title missing /
Le titre de couverture manque | <input checked="" type="checkbox"/> | Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées |
| <input type="checkbox"/> | Coloured maps /
Cartes géographiques en couleur | <input type="checkbox"/> | Pages detached / Pages détachées |
| <input type="checkbox"/> | Coloured ink (i.e. other than blue or black) /
Encre de couleur (i.e. autre que bleue ou noire) | <input checked="" type="checkbox"/> | Showthrough / Transparence |
| <input type="checkbox"/> | Coloured plates and/or illustrations /
Planches et/ou illustrations en couleur | <input checked="" type="checkbox"/> | Quality of print varies /
Qualité inégale de l'impression |
| <input checked="" type="checkbox"/> | Bound with other material /
Relié avec d'autres documents | <input type="checkbox"/> | Includes supplementary materials /
Comprend du matériel supplémentaire |
| <input type="checkbox"/> | Only edition available /
Seule édition disponible | <input type="checkbox"/> | Blank leaves added during restorations may
appear within the text. Whenever possible, these
have been omitted from scanning / Il se peut que
certaines pages blanches ajoutées lors d'une
restauration apparaissent dans le texte, mais,
lorsque cela était possible, ces pages n'ont pas
été numérisées. |
| <input type="checkbox"/> | Tight binding may cause shadows or distortion
along interior margin / La reliure serrée peut
causer de l'ombre ou de la distorsion le long de la
marge intérieure. | | |
| <input type="checkbox"/> | Additional comments /
Commentaires supplémentaires: | | |

Table of Contents

	PAGE.		PAGE.
Editorial Notes	1	Alberni and Vicinity, by J. F. Bledsoe	29
Vancouver	3	British Columbia Coal Mines	30
Victoria	4	A Mining Deal	32
Canadian Pacific Navigation Co.	5	Smelting British Columbia Ores in England	33
Nanaimo	6	Commendable Enterprise	33
New Westminster	6	Ore Shipments	33
Mining Towns and Camps in British Columbia	8	A Progressive Town	33
Mines and Minerals of British Columbia	10	An Expert Opinion	34
British Capital for British Columbia, by J. B. McKillican	12	Cariboo Gold Bricks	34
On Ore Treatment, etc., by W. Pellew- Harvey	15	Mission City	34
Near Home, by Clive Phillips-Wolley	16	Dominion Developing & Mining Co.	34
Investment in Mines, by Charles St. Barbe	17	Lardeau and Trout-Lake	35
Alberni, by Alpha	18	Mining Lectures	35
The History of Our Mines, No. 1 (Special)	18	The Great Cariboo Mine	36
Dredging	20	Similkameen Gold Fields	36
A Multiplication of Names	20	Our Iron Industries	36
Coke	20	Our Christmas Number	36
The Lillooet, Fraser River & Cariboo Gold Fields Co.	20	Unavoidably Held Over	36
Railway Construction in Kootenay	21	Synopsis of B. C. Mining Laws	37
Happenings at the Mines :—		Mining Centres in British Columbia, and How to Reach Them	38
Alberni	21	Gold Commissioners	38
Cariboo	21	Provincial Government Agencies	39
East Kootenay	22	Assayers	39
West Kootenay	23	Mining Recorders	39
Yale	25	British Columbia Mining Companies	39
The Canadian National Highway	26	British Columbia Mining Papers	40
		Table of Stage Distances	40
		Mines in British Columbia	40

WRITE TO—

T. N. Hibben & Co.

BOOKSELLERS, STATIONERS

69 and 71 Government Street Victoria.

For any work on Mining and Engineering, which, if not in stock, they
will obtain for you. A full stock of Engineers' and
Surveyors' supplies carried.

CORRESPONDENCE PROMPTLY ATTENDED TO.

EVANS, COLEMAN & EVANS

Commission Merchants

SHIPPING AND INSURANCE AGENTS

Steam Tug Owners and Lightermen

INDENTS EXECUTED FOR ALL KINDS OF MERCHANDISE

Wholesale Importers and Dealers in Cumberland, Pennsylvania and English Blacksmith Coal, New Wellington Steam and Household Coal, Coke, Steel Rails, Mining Steel, English and Scotch Firebricks and Fire Clay, English Portland Cement, Lime, Plaster of Paris, Terra-cotta Chimney Pipe, Vitrified Sewer Pipe, Liverpool coarse and dairy Salt, Calcutta Grain and Ore Bags, Wire Rope, Chain and General Mining Supplies, Etc., Etc.

AGENTS FOR

The New Vancouver Coal Mining and Land Co.; The New Zealand Insurance Co., (Marine); The Costello & McMorran Salmon Cannery Co.; The Dinsmore Island Salmon Cannery Co.; The Alliance Salmon Cannery Co.; The British Salmon Cannery Co.

EVANS, COLEMAN & EVANS VANCOUVER

Telegrams: 'Evans,' Vancouver.

A.B.C. and A.I. Codes Used.

Wulffsohn

Bewicke & Co.

BANKERS

Real Estate, Mining &
Insurance Brokers ...

—Cordova St., VANCOUVER

Dock House, Billiter Street, London, E.C.
and Vernon, B.C.

E. H. HEAPS & CO.

MINING BROKERS ...

Mining Machinery of all Descriptions

Diamond Prospecting Drills
Engines and Boilers, Hoisting
Engines, Water Wheels, Etc.

SAWMILL & WOOD-WORKING MACHINERY

WAREHOUSE, Powell Street, Telephone 292.
CITY OFFICE, 612 Cordova Street, Telephone 441.
P. O. BOX 652.

VANCOUVER.

W. PELLEW-HARVEY, F.C.S.

(Mem. Fed. Inst. M. and M. E.)

Mining Engineer, Metallurgical Chemist and Assayer

Appliances for testing parcels up to 200 lbs.

ASSAY OFFICES AND METALLURGICAL WORKS:

PENDER STREET, : , : : VANCOUVER, B.C.

THE CASSEL GOLD EXTRACTING CO., LD. OF GLASGOW

THE MACARTHUR-FORREST PROCESS (CYANIDE)

Mine Owners and others having Refractory Gold and Silver Ores for Treatment will find that time and money are saved by adopting the above process.

Send samples for experimental purposes and full treatment report. Full particulars on applying to the Canadian agent of the Company, W. Pellew-Harvey, F.C.S.

VANCOUVER, B.C.

COPP BROS. CO., Ltd.,

Manufacturers of

Famous Warrior Stoves and Ranges.
Wood and Coal Furnaces, English Grates.
Celebrated Mohawk Chief Plows.
Champion and Wheeled Cultivators.
Queen Cultivators.
Drag and Wheel Scrapers, Harrows, etc.
Rock-crushing Machinery.
Mining Cars, Steel and Wood.
Wheebarrows, etc., etc.



Brown, Boggs & Co.,

Manufacturers of

'Tinners' and Cannery' Tools and Supplies.
Cornice and Pattern Makers.
Tools and Machines.



Represented in B. C. by

Wilson & Dixon,
P. O. Box 176. VANCOUVER.



RAND BROS.,

Mining and Real Estate Brokers,
FINANCIAL and
INSURANCE AGENTS.

OFFICES

Vancouver. B. C. London, Eng.



BANK OF MONTREAL

Established 1817. ~

~ Incorporated by Act of Parliament

Capital (all paid up) - - \$12,000,000

Reserve Fund - - - \$6,000,000

HEAD OFFICE - - MONTREAL

HON. SIR D. A. SMITH, K.C.M.G., President.
E. S. CLOUSTON Esq., General Manager.

HON. G. A. DRUMMOND, Vice President.

Branches in all the Principal Cities of Canada

— BRITISH COLUMBIA BRANCHES —

Vancouver, C. Sweeny, Esq., Manager. Victoria, A. J. C. Galletly, Esq., Manager. New Westminster, G. G. Brymner, Esq., Mgr.
Nelson, A. H. Buchanan, Esq., Manager. Vernon, G. A. Henderson, Esq., Manager.

— AGENTS IN GREAT BRITAIN —

London—Bank of Montreal, 22 Abchurch Lane, E.C.; A. Lang, Manager. London Committee—Thos. Skinner Esq.

— AGENTS IN THE UNITED STATES —

New York—Walter Watson and R. Y. Hebden, 59 Wall Street.

Chicago—Bank of Montreal, W. Munro, Manager.

Buy and Sell Sterling Exchange and Cable Transfers. Grant Commercial and Travelling Credits available in any part of the world.
Drafts issued. Collections made at all points. Savings Bank Departments connected with each Canadian Branch, and Deposits Received and Interest allowed at current rates.

Imperial Bank of Canada

Capital Authorized.....	\$2,000,000
Capital Paid up.....	\$1,963,600
Rest.....	\$1,156,800

DIRECTORS:

H. S. Howland, President; T. R. Merritt, Vice-President; Wm. Ramsay, Hugh Ryan, Robert Jaffray,
T. Sutherland Stayner, Hon. John Ferguson.

Head Office, - - Toronto.

D. R. Wilkie, Cashier; B. Jennings, Assistant Cashier; E. Hay, Inspector.

Branches in Ontario:

TORONTO—Wellington Street, corner Leader Lane; Yonge and Queen Streets; Yonge and Bloor Street⁶
Essex. Fergus. Galt. Ingersoll. Niagara Falls. Port Colborne. Rat Portage.
Sault Ste. Marie. St. Catharines. St. Thomas. Welland. Woodstock.

Branches in North-West:

Winnipeg. Brandon. Portage La Prairie. Calgary. Edmonton. Prince Albert.

Branch in British Columbia:

Vancouver, corner Hastings and Hamilton Streets.

Agents:

LONDON, ENG.—Lloyds Bank, L'td.

NEW YORK—Bank of Montreal.

A General Banking Business Transacted. Interest Allowed on Deposits at Current Rates⁶
New York and Sterling Exchange Bought and Sold.

A. Jukes, Manager, ~ ~ Vancouver Branch.

BANK OF BRITISH NORTH AMERICA

INCORPORATED BY ROYAL CHARTER

Paid-up Capital.....£1,000,000 Sterling
Reserve Fund.....£ 275,000 “

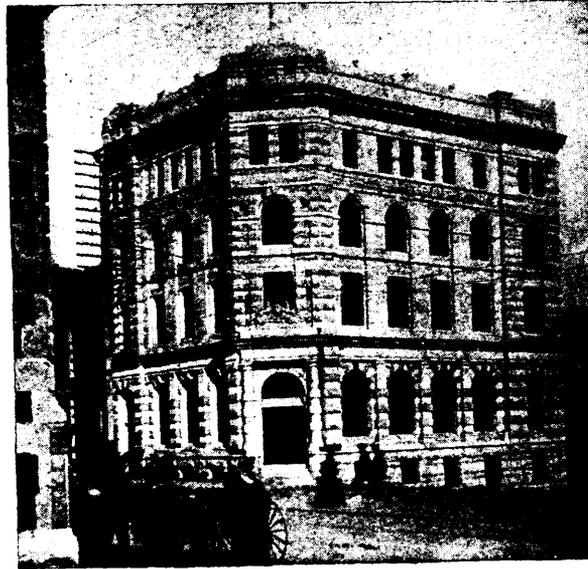
HEAD OFFICE:
3 Clements Lane, Lombard St.,
London.

COURT OF DIRECTORS:
J. H. Brodie, John James Cater,
Henry R. Farrer, Gaspard Farrar,
Richard H. Glyn, E. A. Hoare,
H. J. B. Kendall, J. J. Kingsford,
Frederic Lubbock, Geo. D. What-
man.

Head Office in Canada—St. James
St., Montreal.

H. Stikeman, Gen. Manager.
E. Stanger, Inspector.

BRANCHES IN CANADA :
Brandon. Ottawa.
Brantford. Paris.
Fredericton. Quebec.
Halifax. St. John.
Hamilton. Toronto.
Kingston. Winnipeg.
London. Victoria.
Montreal.



VANCOUVER, B.C., HASTINGS ST., W. GODFREY, MANAGER.

AGENTS IN THE UNITED STATES:
New York, 52 Wall St., W. Lawson
San Francisco, 124 Sansom St.,
H. M. I. McMichael and
J. C. Welsh.

LONDON BANKERS:
The Bank of England—Messrs.
Glyn & Co.

FOREIGN AGENTS:
Liverpool, Bank of Liverpool.
Australia, Union Bank of Aus-
tralia.
New Zealand, Union Bank of
Australia.
India, China and Japan, Char-
tered Mercantile Bank of India,
London and China, Agra Bank,
(limited).
West Indies, Colonial Bank.
Paris, Messrs. Marcuard, Krauss
et Cie.
Lyons, Credit Lyonnais.

BANK OF BRITISH COLUMBIA

Incorporated by Royal Charter 1862.

CAPITAL, with power to increase..... £600,000 \$2,920,000
RESERVE..... £235,000 \$1,143,666

HEAD OFFICE:

60 LOMBARD STREET., LONDON, ENGLAND.

BRANCHES :

IN BRITISH COLUMBIA—Victoria, Vancouver, New Westminster, Nanaimo, Kamloops
and Nelson (Kootenay Lake).

IN THE UNITED STATES—San Francisco, Portland, Seattle and Tacoma.

Agents and Correspondents :

IN CANADA—Canadian Bank of Commerce, Merchants Bank of Canada, The Molsons Bank, Imperial Bank
of Canada, Bank of Nova Scotia and Union Bank of Canada.

IN UNITED STATES—Canadian Bank of Commerce (Agency) New York, Bank of Nova Scotia, Chicago.

IN AUSTRALIA AND NEW ZEALAND—Bank of Australasia.

IN HONOLULU—Bishop & Co.

SAVINGS BANK DEPARTMENT

Deposits received from \$1 upwards, and interest allowed (present rate) 3 PER CENT. PER ANNUM.

Gold Dust Purchased, and Every Description of Banking
Business Transacted.

Victoria, B.C., July 1, 1895.

GEORGE GILLESPIE, Manager.

REID & CURRIE IRON WORKS

Office and Works Cor. Columbia and Begbie Sts.

NEW WESTMINSTER.

**Engineers, = Iron = and = Brass = Founders
Machinists, Blacksmiths and Wagon Makers**

—Manufacturers and Importers of—

MARINE & STATIONARY ENGINES, SAWMILL, CANNERY & MINING MACHINERY

Importers of Iron, Steel Chain and Cumberland Blacksmith Coal, Pipe Fittings and Engineers Brass Goods.

On our Eureka Anti-Friction Metal we challenge competition.

Sole makers of Chapman Hay Press and Logan's Patent Stump Extractor.

 Just received—Carload American White Oak, for Boat Ribs and Carriage Work.

P. O. BOX 59

—TELE. 1-9



JOHN PECK, Manager

FELL & CO., LTD.

—IMPORTERS OF—

GROCERIES, LIQUORS, Etc., Etc.

VICTORIA, B. C.

TELEPHONE, 94.

NO. 49 FORT STREET.

JAMES CRAWFORD

General - Commission - Merchant - and - Agent

for the purchase of heavy MINING MATERIAL in Canada and Great Britain
also for the disposal of desirable MINING PRORERTIES.

VICTORIA

THE WINDSOR NANAIMO

The Headquarters for Tourists and Commercial Men.
First-Class in Every Respect.

RATES : \$2.00 TO \$5.00.

N.B.—Stage leaves the "Windsor" for Alberni, the coming
mining district, every Tuesday and Friday.

HUGH DEMPSEY, . . . PROP.

The COLONIST

ESTABLISHED 1858

VICTORIA, B.C.

Published Daily and Semi-Weekly . . .

Subscription Rate—Daily - - - \$10.00 per Year.

" " Weekly - - \$1.50 " "

Including postage to all parts of Canada and U.S.

Foreign countries, postage extra

SAMPLE COPIES FREE

Address THE COLONIST PRINTING & PUBLISHING CO., LTD.
Victoria, British Columbia.

NATIONAL © MILLS

MANUFACTURERS OF

Rolled Oats, Oatmeal, Split Peas, Pearl Barley, Etc., Etc.

ALSO DEALERS IN

Flour, Grain and Mill Feeds

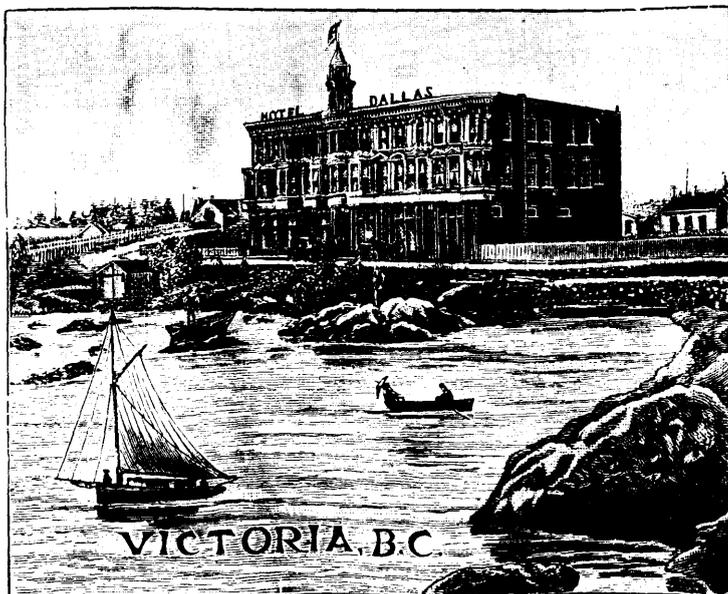
The Brackman & Ker Milling Co., Ltd.

Victoria, Vancouver, New Westminster, Edmonton

The Dallas Hotel.

Rates from \$2.50 to \$5.00 per Day.

Strictly First-Class.



Home For Tourists

Wm. Jensen, Prop. = = Victoria, B.C.

PUMPS For All Duties.
P For Mining **NORTHEY**
Co., Ltd.
 (STEAM AND POWER) TORONTO, ONT.

Wrought Iron Pipe, Lead Pipe, Sheet Lead, Pig Lead, Ingo Tin, Cast Iron Soil Pipe, Bras and Iron Valves, Pipe Fittings
John Boyd & Co.
Injectors, Lubricators, Oil Cups, Steam and Water Gauges, Sanitary Earthenware, Sheet Iron, Sheet Zinc
Engineers' and Plumbers' SUPPLIES.
Sinks, Baths, Marble
Metal Brokers
VANCOUVER
Slabs, Plumbers' Brass Goods

A. J. LANGLEY. J. N. HENDERSON. T. M. HENDERSON
LANGLEY - & - CO
 ESTABLISHED 1858.

Wholesale - Druggists
 21 and 23 YATES STREET, VICTORIA
 335 CARRALL ST., VANCOUVER

H. J. Scott, Agent for British Columbia. Incorporated 1861. W. A. Young, Supt. Nanaimo Works

BRITISH COLUMBIA BRANCH
Hamilton Powder Company
 Manufacturers of High Explosives, Blasting, Mining and Sporting Powder
 Dealers in Electric Blasting Apparatus, Safety Fuse, Detonators, Etc.
 Head Office, MONTREAL Works, NANAIMO Branch Office, VICTORIA
 Local Offices, VANCOUVER and NELSON

The Mining Record

VOL. I.

DECEMBER, 1895.

No. 3.

BRITISH COLUMBIA MINING RECORD.

Devoted to the Mining Interests of British Columbia.

PUBLISHED MONTHLY.

ALEX BEGG, EDITOR AND MANAGER.

ASSISTANT EDITOR - - - - - *B. R. Atkins*
BUSINESS MANAGER - - - - - *D. G. Williams*

Subscription Terms:

Canada and the United States, 1 year - - - \$2 00
Great Britain and Foreign, " - - - 3 00

ADVERTISING RATES ON APPLICATION.

The British Columbia offices are:

VANCOUVER, B.C.:—
Room 6, INNS OF COURT BUILDING.
VICTORIA, B.C.:—
26 STORE STREET.

All communications relating to the publication of THE RECORD to be addressed to "The Editor," MINING RECORD, Room 6, Inns of Court Building, Vancouver B.C.

All communications of a purely business nature to be addressed to the "Business Manager," MINING RECORD, Room 6, Inns of Court Building, Vancouver, B.C.

Mr. Henry Croft will represent THE MINING RECORD in Victoria, B.C.

VOL. I.

DECEMBER, 1895.

No. 3.

Editorial Notes.

The past year has been one of great importance to British Columbia, especially from a mining point of view. The great possibilities of the province, as a field of mineral wealth, are now attracting the attention of capitalists in the principal centres of Europe and America.

Why our vast resources remained undiscovered so long is aptly told by Captain Wolley, in his article, "Near Home," to be found on another page of this journal. During the past few months, all doubts as to the great value of our mining districts have been removed and the province may truly be said to be entering upon a new era of prosperity.

For this we have to thank, in a large measure, the advent of the railway. By means of it, men of experience in mining matters have been induced to visit the country and their knowledge has aided in unearthing the treasure so long hidden.

By means of the railway the necessary machinery and supplies for the development of the mines are brought in at small cost, as compared to earlier times, and the prospector who discovers the treasure, is thus able to sell or work his claim.

In former years there was not the same incentive to prospecting as there is now, because a mine discovered then could seldom be profitably worked, and was, therefore, of little value.

Thus it is that the railway, as a means of cheap transportation in connection with our waterways, is a most important factor in the development of our mines, and too much encouragement cannot be given to the building of branch lines in every direction to tap our mining regions.

It is gratifying, therefore, to note the interest which the Canadian Pacific Railway Company is showing at the present time in the Kootenay district, and there is great hope that, before long, the other mining regions of the province, such as Cariboo, will receive like attention.

The building of the Nelson and Fort Sheppard Railway to the boundary line has done much to draw the treasure of the Kootenay into the United States, and has, no doubt, aided greatly in the development of our mines by American capital; and, while we cannot but desire that ore shipments should come this way, we would be unjust if we did not give our cousins on the other side of the line credit for their energy and enterprise in thus tapping our wealth of treasure. They have truly done much to draw attention to our vast resources.

But, in the near future, we hope to have our own smelters busy at work (a good commencement having already been made in the Kootenay) and great smelting works in active operation, not only in the mining districts, but also along the main line of the Canadian Pacific Railway, especially at Vancouver.

That this will be the case in a very short time we have not the least doubt, but the attention of our citizens should never slacken to bring about so desirable a state of affairs.

Another thing which we commend to those interested in any mining industry is the establishment of an institution for the dissemination of reliable information about our mines. The Provincial Government, through the Minister of Mines, is

certainly giving attention to this matter, but something more is needed on the part of the citizens themselves.

There is an institution at Johannesburg, South Africa, which might, with advantage, be copied in British Columbia. It is a Chamber of Mines, and is composed of all the mining men of the district, and collects and disseminates all items and information concerning the mining industry of the country. It obtains, and publishes monthly, returns of each operating mine in the Rand, and checks instantly any tendency to exaggeration, which, unfortunately, is considered generally prevalent in mining news. If something of this kind were inaugurated here, say in Vancouver, it would materially advance the mining interests in the province.

Victoria is about to have a stock exchange, which will, no doubt, include dealings in mining shares, and its Board of Trade has a mining committee, so that the capital city is not unmindful of the mining affairs of the province. Surely Vancouver will not allow itself to be behind in so important a matter.

More concerted action on the part of our mining men than at present exists would result beneficially, not only to the province generally, but to themselves, and mining associations, formed for the purpose of interchanging views and disseminating information, have a tendency to create unanimity of feeling amongst miners, and those interested in mining affairs. We are sufficiently rich in mines in this province to have an association of this kind. Let something be done in the matter.

The story told by a perusal of "Happenings at the Mines" is one of continued discovery and prosperity. In the Kootenay, operations are being carried on with vigor, and with the snow-fall will come increased activity in mining, owing to the better facilities offered for handling ore. In the Cariboo, the season may be said to be over—but what a season it has been!

True, the output of gold at Cariboo has not been quite up to the predictions made early in the summer, but the fact has been demonstrated that the principal mines there are now in a position to more than realize, next season, the expectations of the owners. The difficulties in regard to water have been overcome, and the most conservative of men predict for Cariboo a wonderful showing next year.

At Alberni, the work of developing is being carried on actively, and the prospects become more promising each day. In East Kootenay, there is promise, during 1896, of great activity on the part of wealthy capitalists, who are regarding favourably several properties in that district as safe and permanent investments.

So the good work proceeds, and yet there is nothing approaching an unhealthy boom. Everything is going steadily but surely on, and 1896 will certainly be regarded as the "year of dividends" in British Columbia.

Not that our mines have failed to pay handsome profits already, for assuredly, in a number of cases, they have earned large divi-

dends; but next year the profits in mining will be spread more generally in the mining districts. The past season has been one of development rather than of actual mining.

It is not unreasonable to expect, therefore, that the eyes of capitalists will be more and more attracted to this country, as our wealth of resources becomes better known. It is not improbable, too, that there may be excitement and speculation in our mining stocks, followed by inflation in values. But we cannot help that; we cannot prevent it. What we can do, however, is to see that no worthless properties are foisted upon the public by speculators.

What concerns us most is that our mines and mining properties shall bear a good character for legitimate investments, and, so long as we bear this in view, and act upon it, our mining industry will remain on a good substantial basis—no matter what the stock gamblers may do.

A couple of cases recently appeared before the courts in this province, where parties induced investors to place their money in worthless mining ventures. We do not wish to make further mention of the unsavory transactions than to say that the decision of the Chief Justice of this province, in the last case, shows plainly that the laws of British Columbia will protect the investor from being fleeced by designing men.

More than this, public opinion here has been so aroused by the disclosures made in the cases above referred to, that, should any further attempts be discovered of parties inducing unsuspecting people to invest their money in worthless undertakings, by false representations, the severest punishment to the guilty individuals will be insisted upon. British Columbia will not countenance shady transactions of this kind. The law will protect the investor from the shark.

There is, it is said, a tendency on the part of some prospectors to place extravagant values on the claims discovered by them. Well! what of it? The only harm such a course can cause is to the prospectors themselves, for no purchaser, with any idea of business in him, will buy a claim without first obtaining the report of an expert upon its value. On this report he will base his decision to accept or decline the offer of the claimant, so that the figure put upon the property by the holder cuts very little figure with the intending purchaser.

It would be better for the prospector to make as thorough an examination of his claim as possible, and then place a fair and reasonable price upon it in the first instance. He will be much more likely to realize than if he jumps at conclusions, and places an extravagant value upon it. It should be remembered that a mere claim, without the means of developing it, is worth very little.

We must say, however, that our sympathies are largely with the prospectors. They are the pioneers of the mining industry, which, without them, would not extend or grow to large proportions. It is they who have to endure the hardships incident to the pioneer work of discovery, and, in most cases, the results of

their labors flow into the pockets of others, who come in at the last moment to reap the benefit. Capitalists can afford to find out the real value of a mine offered to them—the prospector, generally, is obliged to sell in the dark. It would be a good thing if some plan could be discovered to enable prospectors, at a small outlay, to obtain reliable reports on the value of their findings.

It was expected that, as winter approached, many miners and others would leave the Kootenay District, to return there in the spring. This expectation has not, and is not likely to be realized, and this fact speaks volumes for the district. There is every indication, so far as we can hear, of plenty of work for the miners during the coming winter, and the prospects are that from now till spring will be an active season in Kootenay. The prospectors, instead of leaving the country during the winter months, are finding plenty to do at the mines in operation, and, in the spring, the work of prospecting will be resumed by them.

There appears to be an impression with some of the newspapers in the interior that the coast papers show favoritism towards Cariboo, as against Kootenay. We do not think that this is the case, and, answering for THE MINING RECORD, we certainly say that it is not so with us.

This journal is not published in the interest of any particular locality, individual, corporation, or government, but will treat all alike. We have no favorites, and if we should, at any time, overlook any locality, it will be unintentional on our part, and will be remedied the moment it is discovered. THE MINING RECORD is published in the mining interests of British Columbia, as a whole, and not of any special part thereof.

The news, recently received, that new coke works are being built at Anthracite, on the main line of the Canadian Pacific Railway, has a very important bearing on the mining industry of this province. The coke produced is said to be of the best quality, and the cost much lower than the smelters are now paying for the article. Cheap coke is most essential to successful smelting.

We note that American papers are predicting a boom in United

States mining investments next year. It is quite possible that the prediction will be verified. But Americans acknowledge that the richness of the Kootenay District is away ahead of anything they have across the line. If, then, there is to be a boom in American mines, what may we expect for British Columbia.

In England, good authorities are of opinion that this province will shortly be favored with the investment of a great deal of English money. The success of Mr. Barnard during his recent visit to Europe—the visits of several English capitalists, would indicate that British capital is, indeed, looking this way for investment. This is better than an American boom.

Such cases as that of Marcus Daly, the mining millionaire, of Montana, who paid \$60,000, the other day, for the Winnipeg claim, on Boundary Creek, shows, however, that shrewd men of business and experience in the United States have faith in the producing qualities of our mines.

It is not only in precious metals that this province is rich. The fact is becoming more and more evident, that the coal area of British Columbia is much more extensive than that laid down by geologists. Fresh coal fields are being constantly discovered, not only on Vancouver Island, but also on the mainland, and the coal mining industry, although already of very large proportions, may be said to be, as yet, only in its infancy.

The most satisfactory feature about our coal deposits is the fact, everywhere acknowledged, that the British Columbia article is the very best, for all purposes, to be found on the Pacific Coast, and, for this reason, it is always likely to find a ready market.

The success of the B.C. MINING RECORD, so far, is beyond our most sanguine expectations, and the hearty support that has been extended to us, with only a few exceptions, in our efforts to establish a thoroughly representative mining journal in this province, is most gratifying. Thanking all those who have so generously aided us in our work, we wish them, the few exceptions included, and our readers generally, a Merry Christmas and a very happy and prosperous New Year.

VANCOUVER

The geographical position of Vancouver, situated on a most magnificent natural harbor, the only one on Canada's Pacific shore that is accessible at all conditions of tide, and which is frequented by the large ocean liners to the Orient and Australasia, is in itself sufficient to ensure it particular pre-eminence amongst the cities of the Coast. Couple with this the fact that it is the western terminus of the great Canadian Pacific Railway, the only one on the continent in the hands of one company, that stretches from ocean to ocean, and all on British soil, and its commercial and strategical importance becomes at once apparent. These advantages, however, may be further verified by stating that the distance from Japan to Liverpool *via* Vancouver, is some 1,200 miles shorter than the same journey by San Francisco—Vancouver's greatest rival on the coast. Also, that it is unmeasurably shorter from England to the great countries of Japan and China, now the center of European interest, by the British North American route *via* Vancouver, than by the older route of the Suez Canal, and which, without saying more, proves

its value to the Imperial Government and demonstrates its advantages as a port of trade and shipping.

In addition to the numerous advantages, home and foreign, enjoyed by Vancouver in being the terminus of the C. P. R., the home port of the magnificent Empress boats to Japan and China, and the rendezvous of the Australian liners, it is also connected by well equipped steamers with Victoria, Nanaimo, Seattle and San Francisco, and all important points along the coast. It has daily connection as well with the City of New Westminster, by an electric railway eleven miles in length, where it has access to the markets of the State of Washington through the medium of the Westminster Southern and Great Northern railways; and has well-established trade routes to all important settlements in the neighborhood.

Vancouver is the seat of several very important and promising industries, including iron works and foundries, ship yards, sugar refineries, saw and planing mills, canneries, cement and soap works, car and cooperage shops, and many others; and does

an active and energetic wholesale trade with the whole province. Indeed, Vancouver is the supply point and emporium for all the fertile country around and in the rich interior, which, with its immense resources of forests and fruits, minerals and miscellaneous products, animals and agriculture, vies with the sea, with its wealth of salmon, and seals, and shipping, in establishing the commerce and supremacy of Vancouver amongst the cities of the coast.

The scenery, too, about Vancouver is of particular beauty—the Cascade mountains to the north, the ranges of Vancouver Island across the blue expanse of water to the west, the Olympics (fit thrones for gods) in the south-west; and solitary Mt. Baker in its grandeur and snow, in the south-east, combine to form a scenic picture which delights the eye of the traveller and well repays a visit of some length. And here the visitor may well remain, as the ozone from the sea, the gentle breezes from the hills, and the perfect drainage of the city, unite in making a perfect sanitarium. The health inspector's report, which says that "Vancouver is to-day the healthiest city in America, having the extraordinary low death rate of seven-and-a-half per thousand from all causes," confirms this, and speaks more authoritatively than perhaps anything else of Vancouver's happy position and sanitation.

The social and religious institutions of Vancouver are also most commendable—almost all benevolent and kindred societies being well represented, and the different denominational bodies have all most excellent edifices for worship, and are particularly active and energetic. Streets and schools, too, are other features of the city which deserve particular mention. In no other city anywhere, of its size or age, are there such splendid streets as here, some eighty miles of them being perfectly graded and over twenty laid with asphalt pavement.

The schools are most admirably arranged for the comfort and convenience of the scholars, and over \$300,000 represents the present value of school property. The water works, electric lights, street car and gas systems are also excellent, and the newspapers and hotels well conducted and efficient. The banks (of which there are more than in any other city in B.C.) and business houses are of the highest commercial standing, and represent an aggregation of capital unequalled in the province. The numerous fine buildings are of most substantial and architectural finish, comparing favorably with those of cities thrice as old. It is unnecessary, however, to particularize any more of the features of Vancouver, where there are so many deserving of notice, suffice it to say that it has every convenience and attraction that any essentially modern and *fin de siècle* city should have. And this is all the stranger that what is the result of centuries elsewhere, is but the effort of a decade here.

In common, however, with every other city on the continent, Vancouver recently experienced a period of quietude in its hitherto rapid march of progress. Yet it speaks volumes for its resources that, unlike several other coast cities (and Eastern ones,

too) that could be mentioned, the volume of trade, or population, never declined, but grew steadily greater, and many important improvements were introduced.

Signs are not wanting now which show that depression is over, that capital is seeking investment, and that British Columbia will next be the favored field for British and other money. The prospects for the province look rosy, indeed, especially so for Vancouver, though to prove the point it is necessary somewhat to digress.

The great incentive to capital to invest in British Columbia, is, undoubtedly, its mines, which have demonstrated their richness and keep daily getting better and better. To bring the product of these mines to Vancouver, every effort of the C. P. R. and the Government has and will be made. To what purpose but to ultimately establish it as the trade route, and to assist smelters and refineries to work the product of the ore at home, and here it is that Vancouver may see its future, as the inducements for smelters and refineries to build here are numerous and tempting. To begin with, coke is some four dollars per ton less than up country, where already smelters are at work, and which, in itself, is a large saving which the difference in labor, always somewhat cheaper than in the interior, would largely supplement. The great advantages supplied by the C. P. R., which now runs its feeding lines into the richest mining sections of the province, would, with those of the sea, be made the very most of, and which could not be done elsewhere. And then, the necessary flumes, iron and lime, are near at hand, in immense quantities and ready for use. Such advantages will not, surely, be lost sight of, and it is not, therefore, too much to predict that Vancouver, with the prospect of a mining development in British Columbia this coming year—everything, as has been said, points to it—about to enter upon an era of unexampled prosperity and enterprise.

Vancouver has often been called "The Liverpool of the Pacific," but in view of future possibilities, it would, perhaps, be more appropriate to term it—the Denver of B.C. All that Denver is to Colorado, Vancouver may be to British Columbia. There is, indeed, no reason why Vancouver, possessing as it does, the attributes of both Liverpool and Denver, the one as a shipping port, the other as a mining centre, should not someday be as large or larger than either. Why should it not? It has a better harbour than the one, is in a much richer and more varied mineral country than the other, and there is truth as well as poetry in the line—"Westward the Star of Empire takes its way."

That this is not an extravagant forecast may well be tested, if only by the history of Vancouver in the past. Surely, it is not too much to say that a city, which could number a population of nearly 20,000 in but ten years, may, when not nearly as old as is Liverpool, be just as important.

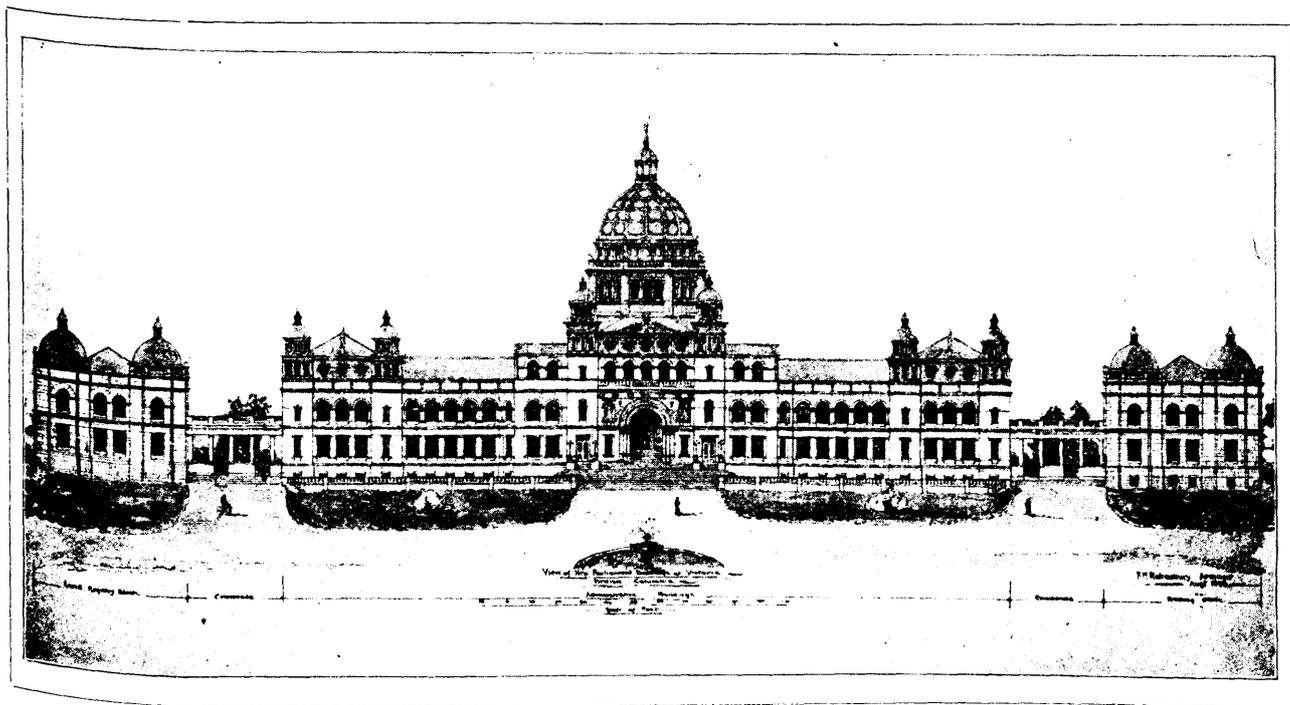
VICTORIA

Victoria, the seat of government in British Columbia, is situated at the southern extremity of Vancouver Island, and is noted as one of the most beautiful spots in the Dominion of Canada. It is remarkable, not only for its delightful situation, but also for the beauty of its surroundings—its picturesque parks and the many pleasant drives in its neighbourhood. For this reason, it is a favorite stopping place for tourists who visit the Pacific Coast, and few, if any, leave it without most pleasant recollections of their stay in the capital of British Columbia.

Victoria is one of the oldest places in the province, having been founded by the Hudson's Bay Company in 1842, and the steamer that carried the founders was the *Beaver*, which was wrecked not long ago at the entrance to Vancouver harbour. In 1852, the future city was laid out by Mr. J. D. Pemberton, and when, a few

years later, the rush of miners to the gold fields of the mainland took place, the population of Victoria increased very rapidly, and from a village it soon grew into a town with several thousand inhabitants.

The Hudson's Bay Company was followed by merchants in several lines of trade, who made Victoria their headquarters, and thus it became the chief commercial centre of British Columbia—a distinction which it has enjoyed for many years. Of late, Vancouver has pressed it closely, but, so far, the old city of the British Pacific Coast, has managed to hold its own. The first cannery was built on the Fraser River in 1876, and since that time the salmon fisheries have grown to immense proportions—a very large share of which is controlled by Victoria merchants. The sealing fleets also make their headquarters in the harbour of Victoria, and this, with the heavy wholesale trade carried on



NEW PARLIAMENT BUILDINGS, VICTORIA, B.C.

the merchants, makes the city a very important place from a business standpoint.

It has now a population estimated to be over 20,000, and its limits have been extended until its area covers many miles and its appearance, as you approach it from the water, is that of a large and well-built city. But the chief beauty of the place is the wealth of foliage that everywhere meets the eye. The streets are lined with trees on each side; the residences are surrounded by well-kept lawns and rare shrubbery, and thus it is that Victoria has been aptly named "the city of flowers." Overlooking the harbour are the Government Grounds, in the midst of which are being erected a magnificent pile of Parliament Buildings—the handsomest, without doubt, in the whole Dominion outside of Ottawa. These buildings add much to the beauty of the already beautiful city.

The inner harbour is small and the entrance to it rather intricate, but, through the energy of Mr. R. P. Rithet, one of the most enterprising citizens of Victoria, over 3,000 feet of wharfage has been erected outside, which is now called the outer wharf. Here the Australian, China and San Francisco steamships load and unload their freight and passengers, and it is now intended to extend these wharves until they will be capable of accommodating the largest ocean steamers, the depth of water being over thirty feet at low tide.

Regular steamers ply between Victoria and all the principal coast cities and towns in British Columbia and the State of Washington. Two railways—the Esquimalt and Nanaimo railway and the Victoria and Sidney railway have their termini here, and, in addition to this, the lines of steamers to Alaska make Victoria their chief point of departure. So that the maritime trade of the city is by no means inconsiderable.

Victoria has a regular system of water works, gas, electric light, and street railway lines running in every direction. One of the latter runs to Esquimalt, which is now being strongly fortified by Great Britain as a naval station for her Pacific fleet of war ships.

Some idea may be formed of the value at the present time of the salmon fisheries, of which Victoria controls the largest share, when it is stated that the pack, in 1894, amounted to 494,371 cases, valued at \$2,362,714, and it is gratifying to note that there is no sign that the rivers of the province show any signs of depletion, thus indicating that the trade is likely to continue. In the seal hunting, there were 53 vessels employed during 1894, and the

catch amounted to 94,474 skins. Most of the vessels are at present lying in the harbour of Victoria, the crews, numbering over 1,400 men—whites and Indians—having been disbanded until next season.

Lumber and coal form two important articles of trade in Victoria, and there are a number of industries being carried on, the principal of which are saw and planing mills, flour, oatmeal and rice mills, machinery and boiler works, shipyards, paint and chemical works, fruit canning, furniture factories, boot and shoe, biscuit, match and pickle factories, and a number of other minor concerns too numerous to mention.

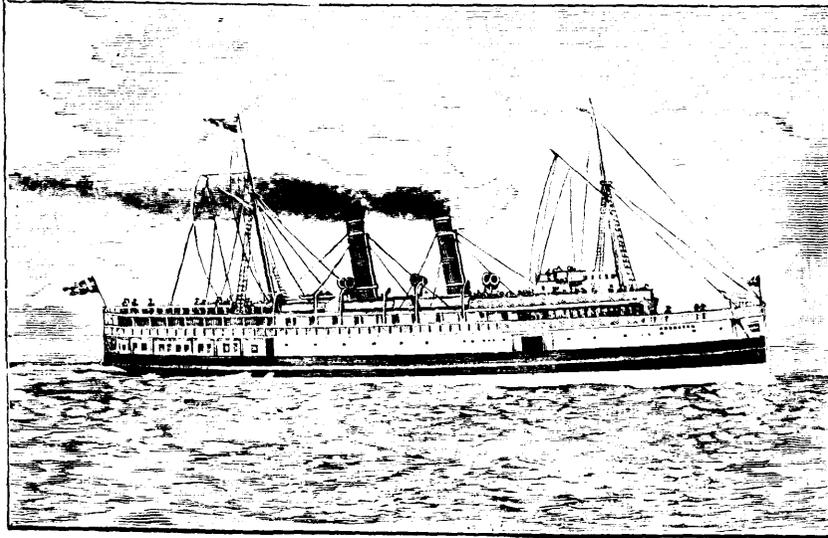
The city can boast of several fine hotels, three large banks, and many handsome public buildings and business blocks.

The activity in mining operations in the province, especially in Alberni, has given a fresh stimulus to trade in Victoria, and the shipping of supplies to the mining regions, is adding much to the volume of business being done at the present time. Several of the wholesale houses have also established agencies in the Kootenay district, so that the capital city does not intend to allow herself to be outdone by others in the race for the mining trade of the province. The recent visit to Kootenay of the Victoria Board of Trade, has stimulated the wholesale merchants of the city to extend their operations to that point of the province, and a rich harvest to them in the near future will be the result. One of the chief connecting links between Vancouver Island and the mainland is the Canadian Pacific Navigation Company, whose boats run from Victoria to Vancouver, the headquarters of the Company being at the former city.

THE CANADIAN PACIFIC NAVIGATION COMPANY, LIMITED,

was incorporated in the year 1883, and commenced business with six steamers—the *Princess Louise*, *Enterprise*, *Otter*, *R. P. Rithet*, *William Irving* and *Reliance*. It was not long until three more steamers, the *Western Slope*, *Gertrude*, and *Yosemite* were added to the fleet, which, practically, gave the company control of the coast carrying trade in British Columbia. Of late years, the company have purchased and built several steamers of a larger and more powerful class, viz:—the *Wilson G. Hunt*, *Maude*, *Premier*, (now the *Charmer*) *Sardonyx*, *Danube*, and *Islander*, the latter, a steel twin screw steamer of 1,495 tons, being one of the finest of passenger boats on the northern Pacific coast.

Daily trips are made between Victoria and Vancouver by boats of this line, connecting with the Canadian Pacific railway, and tri-weekly trips between Victoria and New Westminster. The company's steamers ply on the Fraser, and make semi-monthly trips to Fort Simpson, Metlakahla, Skeena River, Bella Bella, Alert Bay, and ports on northern coast. When inducements offer, trips are made to ports on west coast, and Queen Char-



C. P. N. COMPANY'S STEAMSHIP ISLANDER.

lotte Islands, and regular boats run to Alberni and Barclay Sound, and occasionally, to Butchart Inlet, and other points. It will thus be seen that the boats of this company perform very important services to the trade of British Columbia—their successful management and deserved popularity being due to the energy and care of Capt. John Irving, the manager, and his efficient and courteous staff of officers.

NANAIMO

This rising town, the centre of the coal mining industry on Vancouver Island was incorporated in 1874, and since then has grown to be a city of several thousand inhabitants. It is delightfully situated on rising ground, overlooking one of the finest harbours in British Columbia, about seventy miles north of Victoria, with which city it is connected by means of the Esquimalt & Nanaimo Railway. It is well built and contains a number of fine business blocks, several good hotels, banks, etc. At the present time the Government is building a handsome court house from designs prepared by Mr. Rattenbury, the architect of the Parliament buildings at Victoria, and this structure, being in a commanding position, adds much to the beauty of the town.

Nanaimo in some respects, especially in the older parts of the city, is quaint and old-fashioned in appearance, the streets in several instances being winding, with all sorts of imaginable angles and narrow alleys. But this feature rather adds to the attractiveness of the place, and in the suburbs the numerous neat cottages with well-kept gardens, and the handsome private residences surrounded by beautiful grounds entitle Nanaimo to rank as one of the prettiest towns in British Columbia. The scenery in the neighborhood is very fine, and as you look across the harbour out on the Straits of Georgia, the numerous picturesque islands and the grand range of mountains beyond forms a most attractive scene. Sometimes at sunset it is entrancing, as the mountain peaks, clothed in glowing colours, appear like a great golden fringe stretched across the horizon.

The trade of the city is chiefly with the miners employed by the New Vancouver Coal Company, and with the shipping which load and unload at the wharves. The lumber industry, which is controlled by Mr. A. Haslam, M. P. for the district, forms another very important item of trade, the mills being among the largest and best in the province. There are also machine shops, foundries

and other industries, which serve to swell the trade of the city, and right in the very suburbs are the great coal mines, offices, etc., of the New Vancouver Coal Company, of which Mr. Samuel M. Robbins, one of the most enterprising men in British Columbia, is the manager. The mine of the company at Nanaimo runs under the harbour, at a depth of 610 feet, to a point on Protection Island, where there is a shaft for lighting and wharves for shipping the coal. Thus the New Vancouver Coal Co. have doubled facilities for accommodating shipping. This company have also mines at Southfield, Chase, Northfield and on the Nanaimo River, and as they employ about 1,500 hands their pay roll each month amounts to a large sum.

Now that the mines at Alberni are coming into prominence, and as their development proceeds the trade of Nanaimo will undoubtedly increase to a very considerable extent, and already the stage facilities from the city to the mines have doubled, and from every appearance will have to be still further increased during the coming season. So Nanaimo bids fair to become a great mining centre in more ways than that of the coal industry.

Nanaimo possesses fine systems of waterworks, gas, electric light, and there is a prospect soon of a street railway being built. It has connection by rail with the southern part of the island, and will undoubtedly become a railway centre in the near future, owing to its shipping facilities. Lines of steamers run to all points on the Mainland, to Victoria, Vancouver, New Westminster and the Sound cities. Chief among the steamer lines is the Union S.S. Company, of which Mr. H. Darling is manager. This company own the *Cutch* and *Comox*, two most comfortable passenger boats, the former of which makes daily runs between Nanaimo and Vancouver in connection with the Canadian Pacific Railway. They also own a number of other steamers, chiefly employed in carrying freight, and, like the Canadian Pacific Navigation Co., are doing splendid service for the trade of the province.

NEW WESTMINSTER

Founded in 1858, New Westminster, or as it is more familiarly called—the Royal City—was the first capital of British Columbia, and has about the most interesting history of any city in the province. It is most picturesquely and advantageously situated on the north bank of the great Fraser River—the most important in the country—about fifteen miles from the mouth, and is accessible for deep water shipping of not too heavy draught. Above the city the river is navigable for smaller craft as far as Yale.

Being the only city on the river, the terminus of the Great Northern Railway, and having connection with the C.P.R. main line, New Westminster, situated in the heart of the finest agricultural, most populous, and rapidly increasing district of the province, is certain to become a city of great importance and wealth. Already, a large number of useful industries and manufactures have their works and plant in New Westminster, amongst which may be noticed, the Ross-McLaren and Brunette Sawmills,

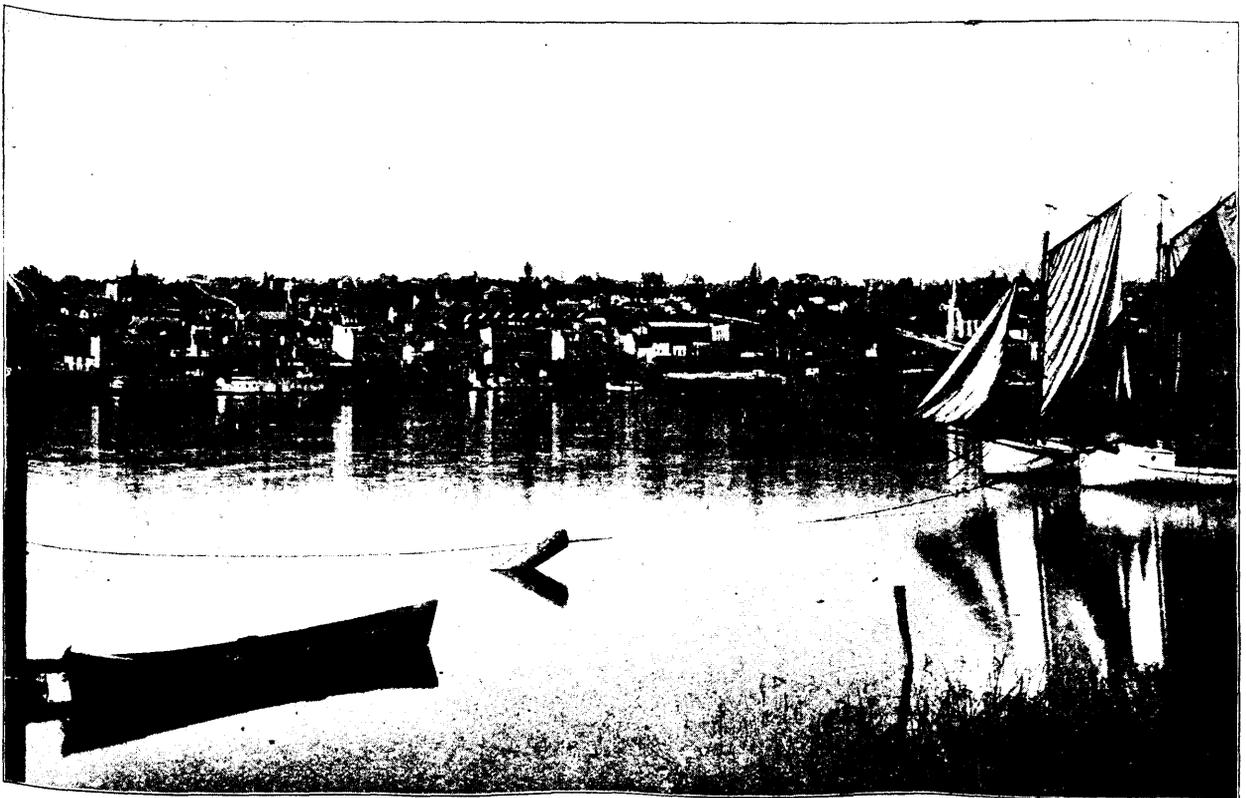
Royal City planing mills, woollen, oatmeal, and feed mills, match factory, Reid & Curry iron works, and numerous other concerns, and all are doing a good and thriving business. But the most important industries of New Westminster are the salmon canning and lumbering, especially the former, of which it is the chief centre. The salmon canneries of and about New Westminster represent an invested capital of over half a million dollars, and turn out annually some 200,000 cases of salmon, or half of the entire output of the province. Several thousand men are employed in this business in the season, which means an immense pay roll, and New Westminster, as has been said before, being the only city on the river, reaps yearly the benefits of the entire trade.

Besides the several facilities already mentioned, New Westminster is connected with Victoria, Nanaimo, Portland, and other seaport towns by a well equipped line of steamers, and is joined to Vancouver by an electric tramway, which accomplishes the distance between the two cities in less than forty minutes. It has also most excellent waterworks, electric light, telegraph, and telephone systems, and has three public libraries and reading rooms, three first-class hotels, two hospitals, two banks, a cathedral, opera house, and several school buildings. It is also the site, being so easy of access from all parts of the province, of several of the more important provincial institutions, including the penitentiary, lunatic asylum, central prison, courthouse, etc.

Indeed, nowhere in a city of its size are there such a number of remarkably handsome and substantial structures, both of a public and private nature, as here. Its residences too are of most pleasing appearance, being amongst the most tasteful and of more architectural design than others in the different cities of the mainland.

It is especially well supplied with churches, being the seat of the bishoprics of New Westminster district, of both the English and Roman Catholic churches. Benevolent societies, clubs, and other institutions of a social nature, are also well represented and active. The streets are kept well lighted, drained and cleaned, and a capital sewerage system, with an efficient sanitary inspector, makes New Westminster a most desirable place to live in, and exceptionally healthy.

The last census gave New Westminster a population of 7,000; as however it has grown with the rest of the province. it is but fair to put its present population at 10,000, but it may be more, as no recent recount of it has been made. In conclusion, it should be stated that New Westminster has a most efficient Board of Trade, its business men are keenly alive to every advantage or opportunity to better the city, and its inhabitants are extremely loyal to it, all of which go far towards building up a city and making it a place of great commercial importance, and to this much desired goal, New Westminster has already far advanced.



MOUTH OF FRASER RIVER AT NEW WESTMINSTER, B.C.

Mining Towns and Camps in British Columbia.

AINSWORTH.

A flourishing town on Kootenay Lake about eleven miles south of Kaslo. It was originally known as Hot Springs, and is one of the oldest and best-known towns in Kootenay. The population is constantly growing, and the mines, about four miles back, are steadily shipping, notably the No. 1 and Skyline. Nearest railway station, Kaslo; mails four times a week.

ALBERNI

Is situated on the Sumas River at the head of Alberni Canal on the west coast of Vancouver Island, 120 miles from Victoria, fifty-four from Nanaimo. It is the centre of the rich mineral country which is lately attracting considerable attention, notably on China, Mineral and Granite Creeks, on which gold quartz veins of large size have been discovered. Coal and iron have been discovered. Stage connections with Nanaimo, the nearest banking point.

ASHCROFT

Is pleasantly situated on the main line of the C. P. R., at the south bank of the Thompson River, near its junction with the Bonaparte. It is the forwarding and distributing point for the immense territories of Cariboo and Lillooet, which stretch away to the north. The increased activity in Cariboo, this year, has consequently made Ashcroft a very busy place, and its future prospects are very bright indeed. Stage connections for Barkerville, Clinton and other points, three times a week, and headquarters of B. C. Express Co. Mails daily; money order office.

BARKERVILLE.

Who has not heard of Barkerville, the great placer camp of the early sixties, and situate on the equally famous William's Creek, 285 miles from Ashcroft. It is the termination of the old Cariboo wagon road, and is reached by stage from Ashcroft every other day. Barkerville is not what it once was, yet it is not by any means deserted or idle as many seem to think. A good deal of work is being done on the rich placers on William's and Slough Creeks, and all their business is done at Barkerville. As long as there is a British Columbia, Barkerville will be a name to conjure with. Telegraph, money order and express offices.

BOUNDARY FALLS

Is some four miles from Midway, on Boundary Creek, and is the centre of such well-known and promising mining sections as Gold Drop, White's, Greenwood, Deadwood and Copper "camps."

DONALD

Is the end of the C.P.R. Pacific division, and has consequently all the business and advantages such distinctions confer. It is the supply and shipping point for a very promising mineral country. Daily mails, post, telegraph, and money order offices.

FORT STEELE

Is the most important place in the southern portion of East Kootenay, and has near it the famous Perry and Wild Horse Creek placers, also some very rich gold quartz properties on St. Mary's River. It is reached from Golden, on the C. P. R., and Jennings, on the Great Northern. Weekly mail; nearest banking point, Golden.

GOAT RIVER,

Though not a town, is a well settled farming and mining district at the southern end of Kootenay Lake. Mining has been carried on here for some time; claims show well in gold and copper.

GOLDEN,

On the C. P. R. main line, and the junction of Kicking Horse River with the Columbia, is a very pleasant and prosperous place. The rich mining districts on the Upper Columbia are reached from here, and it has such well-known mineral belts as the McMurdo basin and Thunder Hill near by. It has post, money order, express and telegraph offices, and a daily mail; altogether a very thriving place with a good newspaper, and smelter.

GRANITE CREEK.

Once well known, but lately forgotten, is again coming to the front, and much work with splendid results is at present going on. A ten-ounce gold nugget was discovered there last month (November). Stage from Spence's Bridge; bi-weekly mail.

ILLICILLEWAET.

There is a town and district of the name. The town is on the C.P.R. line, 407 miles east of Vancouver, and is the centre of the district which is well known as a promising and reliable mining country with many good silver and copper claims in it. Daily mails, money order, telegraph and express offices.

KAMLOOPS.

The Inland Capital, is situated on the confluence of the North and South Thompson Rivers, and is the most populous city on the C. P. R., between Calgary and Vancouver. It has splendid water works and electric light, and is ably financed by Mayor and Aldermen. It is noted for the salubrity of its climate, and is a much sought place by the invalid. Rich coal beds have been discovered in the neighbourhood of Kamloops, also some very rich mineral. There are all the comforts of a first-class city to be had in Kamloops, and the channels for trade with the surrounding country are well appointed and equipped. The Nicola mining district is distant only some twenty-five miles. A well edited paper—*The Inland Sentinel*—is published at Kamloops.

KASLO.

The City of Energy, as it has been called, is situated on Kootenay Lake at the mouth of the river which bears its name. No other town, perhaps, in British Columbia, except indeed it be Barkerville, is so well known as Kaslo. Commenced in 1892, it was the "mecca" of all the mining men of the West attracted by the discoveries in the now famous Slocan, and for the ores of which, it is the natural shipping point. Visited in 1894 by fearful fire and flood, over half of it was wiped out, but the inhabitants held on with grim tenacity, and to-day the city, for it is a municipality, is rapidly coming again to the front. It is now connected by rail with the mining country behind it, and everything points to its being a large and flourishing city, and one of the most important in the province. It has daily mails, telegraph, express and money order offices, and a post office savings bank branch. It is the port of call for several fine steamers, is the terminus of the K. & S. R. R., and has a splendid stage service to the mines, if required. English, Presbyterian and Methodist churches are here, good hotels, newspapers and every modern convenience.

LARDEAU CITY

Is on the northeast arm of Upper Arrow Lake, and has a very rich mineral country around it. Communication all the year round will be had when the branch railway from Revelstoke to Arrow Lake is completed, and on which work is now in progress.

LARDO-DUNCAN.

This is a splendid mineral country with immense ledges of galena ore, and is situated at the northern end of Kootenay Lake. It is well watered by the Lardo-Duncan Rivers, and has numerous good claims located in it. Chief townsite, Duncan city. Communication with Kaslo by steamer and boat.

LILLOOET.

Connections are made with Lillooet, which is on the Fraser River, from Clinton and Ashcroft by wagon road. It is the supply point for the placer fields on Bridge River and Cayoosh Creek, and numerous dredging leases are held here on the Fraser. Nearest railway station, Ashcroft, sixty miles. Mails once a week.

LYTTON

Is 156 miles from Vancouver, on the C. P. R., and is a thrifty little mining and farming town, with daily mails, money order, telegraph and express offices.

MIDWAY

Is very generally yet incorrectly called Boundary. It is splendidly situated on a large plot of level ground, some six hundred

acres in extent, and is well watered by the Kettle River and Boundary Creek. It will, without doubt, be the supply point and residential abode for the mines and miners of the rich surrounding camps, and a place of some importance.

NAKUSP.

This is the northerly terminus of the Nakusp & Slocan Railway, which runs into the rich Slocan country. It is situated on the east shore of Upper Arrow Lake, fifty miles from Revelstoke, with which it will be connected by rail this winter. It is the Canadian outlet for the Slocan ores, as much as 7,000 tons going out that way last year. Tri-weekly mails, good travelling connections, rail and steam, with all West Kootenay.

NELSON

Is situate on the outlet of Kootenay Lake, and is almost invariably termed Kootenay's Capital, which it is. It is admirably adopted for a large wholesale and trade centre, and is already the terminus of two railways—the Columbia & Kootenay Railway and the Spokane & Northern Railway. A large smelter is now being built at Nelson for treatment of Silver King ores, and several large wholesale houses from Winnipeg, Spokane and the Pacific coast are making it headquarters for their Kootenay trade. The two banks, Montreal and B. C., have branches here, and two very excellent papers, indeed, are published in the town—the *Miner* and *Tribune*. It has electric light and waterworks systems, splendid communicational facilities with the entire country, and good schools and churches. It is one of the oldest towns in Kootenay, being laid out in 1888, and the buildings are of substantial character. It is the residence of the Gold Commissioner, and assizes are held there in a well-fitted and commodious court house. Tri-weekly mails, money order, telephone, telegraph and express offices.

NEW DENVER

Is the capital of the Slocan, and is located in the heart of some of the finest mountain scenery in Canada, on the east shore of Slocan Lake. It is surrounded by splendid mines, and is on the Nakusp & Slocan Railway line. There can be no doubt that New Denver will some day be a large town, as it is so advantageously situated as a supply and residence point for the mines near by. It is already the headquarters of many companies operating mining properties in the Slocan. Tri-weekly mails, newspaper—*The Ledge*—money order and express offices.

PILOT BAY

Is now a place of much importance to Kootenay, indeed to British Columbia, as the first smelter in Kootenay, running ore and shipping bullion, is located there. It is also very probable that a large refinery will soon be added to the present plant. The main supply of ore that feeds the smelter is taken from the Blue Bell mine, about ten miles further north on Kootenay Lake, and which is also the property of the smelter owner, Mr. Hendryx. Buildings are steadily going up in Pilot Bay, and it will be the industrial depot of Kootenay Lake. Good stores, hotels, mails and local communications are all to be had. Nearest railway depot, Kaslo & Nelson; nearest banking point, Nelson. It might be added that the capacity of the smelter is 200 tons per day, and employs about 200 men.

QUESNELLE AND QUESNELLE FORKS.

The latter is one of the oldest, still one of the best, mining camps in Cariboo, and is built at the confluence of the North and South Forks of Quesnelle River. The famous Cariboo Hydraulic Mining Co.'s ground is located here, and much development is being done. Quesnelle is also busy, and the Quesnelle River Hydraulic Mining Co. are working satisfactorily near here. Weekly mails, telegraph at Quesnelle, nearest telegraph for "The Forks," Soda Creek.

REVELSTOKE.

Situated on the Columbia River and on the main line of the C. P. R., Revelstoke is enviably blessed. Steamers may, and do, go down the Columbia and Arrow Lakes from Revelstoke to Northfield, over 200 miles, and here connections can be made with the

Spokane & Northern Railway. It has exceptional advantages of communication, and is using them to the best advantage. There is a smelter, sawmill, paper and good stores and hotels; also churches, schools, money order, telegraph and express offices. It is the principal town of the North Riding of West Kootenay, and the celebrated Big Bend placer country is reached from here.

ROCK CREEK,

On junction of Rock Creek and Kettle River is a well known gold camp, and is just now the subject of close attention by prospectors and mining men. Communication by Penticton, twenty-five miles. Weekly mail.

ROSSLAND.

This town was named after Ross Thompson, who staked it as a pre-emption in 1892. In January, 1895, there were but 300 people in the place, now there are nearly 3,000.

The cause of this great immigration to Rossland is now well known, the discovery of the rich mines immediately about it. Although the best of these mines were discovered in 1890, it was not until the close of 1894 that much was known of the great mineral belt that exists there; now the entire country is being staked and developed, and the results are simply astonishing.

Rossland is right in the heart of the mines, about seven miles from Trail Creek, on the Columbia. At present the ore is hauled out by wagons and sleds, but the Red Mountain Railway and the C.P.R., both intend to build into the town next summer, and charters for light railways have also been applied for. What Rossland, with two railways competing for ore traffic, and the consequent development of the rich immediately surrounding district, will be in the near future, it would be rash to say, but if judged only by the past, she will vie with importance any of the cities of the coast. Tri-weekly mails, three newspapers (all good), theatres, stores, hotels, churches and every modern want all well to the fore at Rossland.

SANDON.

This place, but a few months old, shares with Nelson the distinction of being the only town in Kootenay that is terminus to two railways. The Nakusp-Slocan and Kaslo-Slocan roads meet here, and down each slope the treasures of Slocan are carried to the north and south. Sandon is rapidly building up, and will, in the near future, be a town of considerable size. It is enough to say, to secure its future, that the great Slocan Star mine, with many others nearly as rich, are all around it.

SLOCAN CITY.

At the foot of Slocan Lake is another new place that has come into prominence by the very rich finds in native silver on Springer Creek, near by. It is fast settling up, and will be busy next year.

ST. MARY'S.

This is also a mining district, famous for some very rich mineral, notably the White Grouse Mountain copper claim which is of exceptional richness and width of ledge. It lies east and south of Pilot Bay, and is entered by Twelve Mile Creek trail from the townsite of Davie, also by La France Creek. Gold is also found in St. Mary's, and the prospects of the district are good.

THREE FORKS

In the heart of the rich Slocan, and with two railroads running into it—the Nakusp-Slocan and the Kaslo-Slocan—it has surely, advantages enough to boast of. It is situated on the three forks of Carpenter Creek, and is a rustling, busy, little town with good stores and hotel accommodations. Owing to the immense amount of labour performed in the building of the railways mentioned, Three Forks was about the busiest town in the Slocan this year, and will always be a busy one. Tri-weekly mails, money order express offices.

TRAIL

Is the present shipping port for Rossland, being situated on the navigable waters of the Columbia, and gave its name—Trail Creek—to the whole district around it. A new townsite has been

laid out at Trail, a most perfectly equipped smelter is being erected, and houses and stores are going up like magic. A good mineral country is near Trail, and it is bound to be a place of great importance. A company is about to construct a light railway or electric tram to Rossland and bring ore, etc., down. Every convenience that could be expected is to be had at Trail, including newspapers.

TROUT LAKE CITY

Is situate near north end of Trout Lake, thirty-three miles from Kootenay Lake, and between it and the north-east arm of Arrow Lake. It has a very good mineral country around it, and will be more heard of by and bye.

VERNON.

This is the chief town in what may be described as British Columbia's store-house—Okanagan—Spallumcheen. It is incorporated, and its assessed value is some \$500,000. It is on the Shuswap & Okanagan Railway, about four miles from Okanagan Lake, which gives it exceptional communication with all the rich farming, fruit-growing and mining fields of Lower Yale. It is a great resort for tourists, big game abounding near at hand. It is the supply point also for the adjacent mining camps at Hewitt's, Swan Lake and Cherry Creek. It has good stores, Bank of

Mines and Minerals of British Columbia.

It would almost be difficult to point to any one of the many districts of British Columbia in which gold, silver, or some other metal or mineral of commercial value, has not been found. Let it be the islands of the Pacific on the west—Vancouver, Texada, Queen Charlotte, they have gold, iron, coal; or the great chain of the Rockies on the east, with their known and varied wealth of gold, silver, coal, and other products; indeed, where you will, some precious or base metal is found. Commencing with the first discovery of gold at the Thompson River in 1857, by some trappers led thither by Indians, to the present day, with the equally startling discovery of the great gold-bearing belt at and around Rossland, the history of British Columbia mining is full of surprises. During the interval between the two occasions specified, metals, minerals, and ores of almost every description, including silver, lead, iron, copper, coal, cinnabar, iron pyrites, plumbago, mica, asbestos, and platinum, have been brought to light. As yet, however, the mining industry is young, and but commenced; but what it may be, in a country of such mineral wealth, three times larger than Great Britain, and including over eight hundred miles in length of the Cordilleran region—which is a certain guarantee of wealth—it would, indeed, be extremely rash to predict.

It may seem strange, it most probably does, to the non-resident of British Columbia in the East, or, perhaps, in Great Britain, who has heard of the great mining activity and wealth of the Western States of America, that British Columbia's mineral resources have not been equally as famous and noticeable. The following pregnant little sentences of Dr. Dawson's, from a paper read by him before the Royal Colonial Institute, on March 14th, 1893, tell the reason why: "Because a mountainous country, and, till of late, a very remote one, the development of the resources has heretofore been slow." "It was necessary that railways should be constructed to convey machinery and carry ores, as well as to bring men who are in a position to embark the necessary capital in promising enterprises." The murder is out now, and explains most succinctly how it is that British Columbia, although as rich in mineral wealth as any Western State, has but till lately demanded the attention that other, perhaps less worthy, places received some years ago.

The Canadian Pacific Railway has done, and is doing now, all that the railway does for the latent wealth of a country, so also are other lines, local and foreign, and wherever they have been constructed is now the scene of increased mining activity. And yet, it is not alone in districts where railroads are being built

Montreal branch, Wulfsohn & Bewicke's private bank, daily mail, fire brigade and live, well edited newspaper. Church of England, Presbyterian, Methodist, all have churches; in fact every comfort can be had at Vernon.

WELLINGTON

Is a fast-growing and very prosperous coal mining town on Vancouver Island, seventy-eight miles from Victoria. The town is substantially built, and, like every town with a large pay-roll, is a decidedly busy and energetic one. The mines are owned by Messrs. Dunsmuir, and they exported more coal in 1894 than did the larger ones at Nanaimo. It is the terminus of the Esquimalt & Nanaimo Railway, and cars load at the shutes. There are churches of all denominations, hotels and boarding houses in plenty, and a good paper. There are about one thousand hands employed here, and the population is very large and cosmopolitan, perfectly orderly and industrious. Daily mails, money order, telegraph and express offices.

YALE

Is an old and well-established town, 100 miles from Vancouver on the C. P. R. line, and the head of navigation on the Fraser. It has long ago proved itself worthy of notice in a list of British Columbia mining towns. It has daily mail, telegraph and express offices.

that mining operations are active, but in districts such, say, as Cariboo, which despite the fact that it has produced fifty million dollars worth of gold, is yet without a locomotive, and where all the freight and machinery necessary for the important undertakings now being carried on are all transported by wagon for hundreds of miles. That such energy as is at present displayed in mining, in this and other districts which are not provided with railways, is most commendable, and, indeed, wonderful, and proving, as it most certainly does, the richness of the matter mined, as well as the "grit" of the miner, it is something of which British Columbians are justly proud. It also confirms the fact of the universality of distribution of minerals, which Dr. Dawson instances by saying: "There is no reason to believe that the particular portions of British Columbia now opened to mining by means of the Canadian Pacific Railway are richer in ores than other parts of the province." This is exactly what British Columbians, and, indeed, many noted visitors too, believe to be the truth, and by a short resume of what is going on in the mining industry of the country it is hoped to still further establish the facts, and remove all doubt as to the mineral resources of the country.

KOOTENAY.

Where to begin, in Kootenay? Well, Kootenay be it then. Here a scene of most wonderful development presents itself. Hardly a week passes without some event of considerable importance occurring to mark the progress of this great district. On the 29th of October the Kaslo & Slocan Railway was completed to the heart of the famous Slocan District, and lately the equally important Nakusp-Slocan branch, to the same point, was completed. About November 1st, was finished a wire tramway from the Silver King mine to near Nelson, and a smelter to run the ore is rapidly growing there. Another smelter is going up at Trail for the Rossland mines product, and two concentrators are almost completed in Slocan. The Pilot Bay smelter, too, is offering reduced treatment rates, and many mines are sending it their product. Since March last, about 126 square miles of mineral lands have been staked off at and around Rossland, and the receipts at the Government office there since the 1st of March last, exceeded \$20,000. For miners' certificates alone, \$7,751 were paid in, and \$7,245 was received for mining records. In the same time over 1,000 instruments of sale or bond were filed, and 176 claims were issued on certificates of improvements. Mines like the War Eagle and Le Roi are paying dividends of 5 per cent., after paying first cost and all improvements, and the Slocan Star and Alamo run them close.

Moneyed men from London and New York are visiting the district, and experts, deputed by large companies, are closely examining its wealth. From every section of it reports keep coming in of new discoveries, and its mountains as yet, in some places, have not been touched. Towns are springing up like magic everywhere; at Rossland, there were but 300 people in the spring, now there are nearly 3,000; at Trail, commenced but this summer, there are over 500 inhabitants now, but let these instances suffice, though others could be quoted. Steamers and railways are working hard to cope with the immense traffic of the country, but still it is too great for them, and next year will see new boats and lines put into operation.

The mineral output (which includes gold, silver, copper and lead) of Kootenay, may properly be said to have commenced in 1893-'94, when it was valued at half a million dollars; next year it was worth a million and a half, and this present season of 1895-'96, it is estimated by careful authorities that it will be three million dollars at least, if not more. Before leaving Kootenay, it might help to prove the richness of the country where no railroads are by instancing that of Rossland. Trail Creek is now producing some 3,000 tons of ore per month, of a value of \$45 per ton, making a total of \$135,000 per month, without railway or reduction facilities of any kind. Its ore has all to be carted out over wagon roads in the most primitive manner, but tramways and smelters will soon be built. And then what may not the output from Trail Creek be, when its ores can be carried out at all seasons of the year, and be smelted on the spot.

Johannesburg ore rarely exceeds in value \$12 per ton, and the richest is but \$25, yet its gold output, after ten years' hard work, is \$3,000,000 per month. Trail Creek is but a year old; its ores are richer, nearly four times over, than those of Johannesburg, and its mines have been proved for depth; is it too much to hope for, then, or even to expect, that it may some day prove a worthy but friendly rival to the great field in South Africa itself.

CARIBOO.

Turn we now to Cariboo, golden Cariboo, which might appropriately be termed the cradle of British Columbia, as it was the gold rush there in '59 that raised it from the position of a "fur" country to the dignity of a colony and finally a province. Here, although, as has been said before, no respectable means of transportation exist beyond a wagon road, great activity prevails in hydraulic mining circles. As late, however, as 1894, the gold commissioner for the district said: "With all her hidden wealth in minerals, the fact remains that the mining portion of the district, at least, has, for the past twenty years, been gradually diminishing in population. This would now appear to be changed, and it is to be hoped that the tide has turned." The output that year was \$200,000. With the season of 1895 the tide turned; indeed, and the influx of men, machinery and supplies was something wonderful. Great operations were commenced on several noted claims, especially the Cariboo and

Horsefly, which, between them, in less than a month's solid labor, have produced \$100,000 worth of gold. Famous grounds like Barkerville, William's Creek, Lightning Creek, and Quesnelle Forks and River, are also turning out gold in large quantities, and the output for the year is expected to be a great one. Quartz mining, too, is attracting more attention than formerly, and it is confidently predicted that a great development in this form of mining will soon take place, as there are large quantities of quartz in sight, which average about \$20 in gold per ton. This view is shared by such a distinguished authority as Dr. Dawson, whom it is delightful to quote, his remarks being so terse and withal so full of meaning. He says: "Reverting for a moment to Cariboo, where such notably rich deposits of alluvial gold have been found within a limited area, and where, very often, the gold has been actually mingled with the quartz of the parent veins, it cannot be doubted that these veins will, before long, be drawn upon to produce a second gold harvest."

CASSIAR AND LILLOOET.

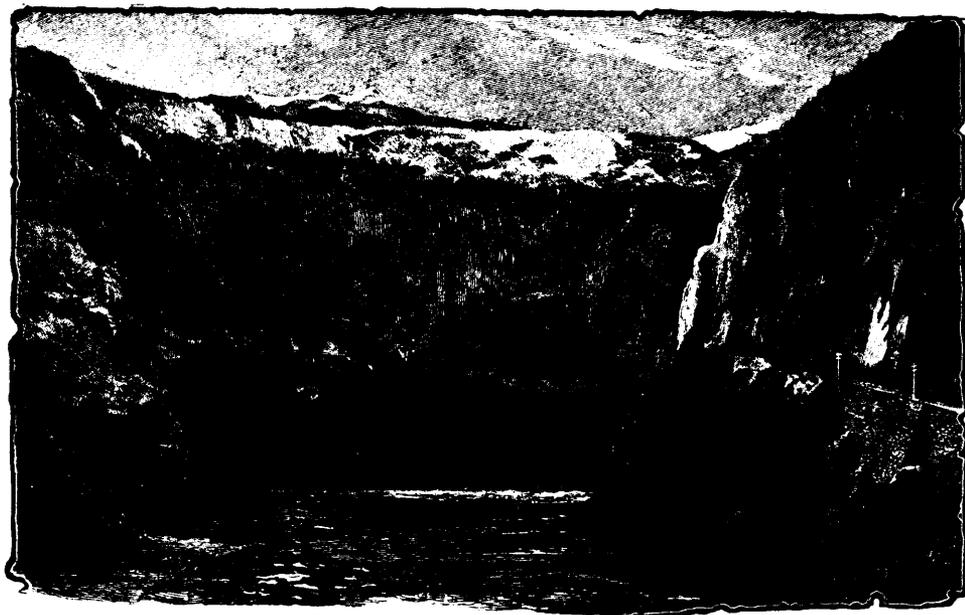
In Cassiar, which lies away to the northwest of the province, and which may be said to be almost unknown, has been discovered some very rich placer grounds, and, in 1894, it produced

as much as \$22,700 worth of gold. This, be it remembered, was but the work of very few men, but proves satisfactorily the existence of still greater wealth behind it. Lillooet, directly south of Cariboo, is bisected by the great gold bearing Fraser River, and is noted for rich alluvial deposits; coal is also being prospected for, but, as yet, without much success. Dredging, that

is very successfully used in New Zealand, is a new manner of getting gold, which has lately, with every prospect of success, been introduced at Lillooet. In 1894, the district suffered from long continued and extreme high water, which greatly retarded operations, and limited the output, but this condition of things is not likely to occur again for many years.

EAST KOOTENAY.

Does not lag far behind the Western district of the same name in mineral wealth, but, in common with other sections of the province, lacks the necessary means of communication. In diversity of minerals it is well to the fore, having gold, silver, lead, copper, iron and coal in vast quantities within its borders. The famous McMurdo "basin" having well defined gold and silver lead properties, and a car load of ore from Vermont Creek is known to have realized at the smelter slightly over \$2,000. The gold quartz lodes in East Kootenay are, if not as rich as some elsewhere, of immense size, and can be worked with as much profit per ton as the Treadmill mine in Alaska, which, in some ways, they resemble. For the year ending May 31st, 1894, the average ore yielded by the Treadmill was \$3.20 per ton, while the expenses of mining and treatment were but \$1.35 per ton, and the net profits were \$377,203 for the year. There is good reason to expect that East Kootenay will do better than the Alaskan



BLACK CANYON, THOMPSON RIVER, BRITISH COLUMBIA.

mine. The yield of placer gold from East Kootenay also, is not inconsiderable, being \$25,000 in the year just past. The coal deposits of Crow's Nest Pass, so large and of such good quality, must not be forgotten, as they will, in the near future, be the means of introducing the railway in East Kootenay (surveys have already been completed and construction to begin in 1896), and which it alone lacks to bring it into prominence and notoriety.

YALE.

The mineral resources of Yale, both in its northern and southern portions, give promise of great wealth, and offer a profitable field for investment. In the Yale division, which is crossed by the Fraser River, famous for the rich washings of gold taken from there, numerous companies are at work in dredging and sluicing the gravels of the river, and all look forward hopefully to a prosperous season's work. A huge dredge (of which description is given elsewhere) is now being built at Vancouver for operations here. Good quartz veins also, are numerous. In the Thompson River district valuable mining properties—gold, silver, lead and copper—are all to be seen working satisfactorily. The Glen Iron mine at Cherry Creek is a splendid property, and was lately bonded for \$60,000. Nicola division, in the central part of Yale, is rich in a variety of mineral deposits, including rich platinum, and at Tulameen and Slate Creeks, coking coal of good quality exists, while at Coldwater magnetic iron is found. At Granite Creek, hydraulic gold washing is in progress, with most excellent results indeed. At Vernon, an immense body of gold-bearing quartz has been discovered, running to \$15 per ton. Near Kamloops also, a splendid vein of cinnibar, fourteen inches thick, is being profitably worked. In Osoyoos division, in Southern Yale, mining is exceedingly active, and attracting more than ordinary attention from capable mining men, and it is predicted that it will be next year the scene of unusual activity. There are wonderful bodies of gold, silver, lead and copper ores in the district, which only await capital to pay handsomely. Sharp, monied men are already picking out prizes, and \$107,000 was invested in mining properties in one week of November. Transportation is needed badly, and, when once introduced, this section of British Columbia will be second to none. Several properties are turning out and shipping ore, and negotiations are in progress for the building of a smelter.

VANCOUVER ISLAND.

In common with other portions of British Columbia, Vancouver Island adds to the sum total of its mineral wealth, particularly in gold, iron and coal. Immense bodies of iron ores, hematite and magnetic, are found in the island, near Barclay Sound and other places. Alberni has lately been the scene of important discoveries of large veins of gold-bearing quartz, which assays from \$40 upwards per ton. Several strong companies are turning their attention to these finds, and development work, commenced this season, will be actively continued during the coming year. On China and Granite Creeks (Alberni), several miles are taken up for hydraulic mining.

Coal, however, is so far the most important mining substance in the Island, the output for 1894 being 1,012,953 tons, representing the labor of 3,000 miners or hands. As early as 1853, about 2,000 tons of coal were raised at Nanaimo, and since then the coal industry has grown into the present proportions. A ready market, on account of its superiority to the coal of the coast of the United States, is found in California and other states. The principal coal districts are Nanaimo, Wellington and Comox, but they by no means represent the coal bearing tracts of the island, as being on the sea coast, they were naturally first exploited.

OTHER ISLANDS.

On Texada Island, great iron deposits are to be seen, and which, though not now in use, will some day be of great value. Queen Charlotte Islands, where gold is said by some to have been first discovered in the province, contains several copper deposits of great value, and anthracite coal is found, but has not yet been successfully worked.

Here, however, this article must end, sufficient having been told, however, to establish the wealth and variety of the minerals of British Columbia, and prove it worthy of attention both at home and abroad. One more quotation from the favorite authority, (Dr. Dawson) may not be out of place to clinch the facts. He says: "While the more important products seem likely to be gold, silver and coal, its known minerals are already so varied, that, as it becomes more fully explored, it seems probable that few minerals or ores of value will be found to be altogether wanting. It is now, there is every reason to believe, on the verge of an era of prosperity and expansion, of which it is yet difficult to foresee the amount or the end."

That era has begun in Kootenay, where millions are being invested, and produced again with profit. The other districts have caught the contagion, and from everywhere comes reports of new discoveries. The whole province is filled with mineral, and is being searched by thousands of prospectors. An awakening to the fact that the mining industry is the chief source of wealth, and that in it lies the future of British Columbia, is now becoming general; well might it be said, it is yet difficult to foresee the amount or the end of the era of prosperity and expansion which has just begun.

British Capital for British Columbia.

By J. B. McKILLICAN.

In view of the fact that recent discoveries of rich gold and silver deposits in British Columbia, are now attracting the attention of capitalists towards the province, as a profitable field for investment, it may not be amiss to give a few particulars concerning the resources of the country generally in this number of THE MINING RECORD. It is not the intention to add anything very new to what has been already published in various forms, but a little repetition, at the present time, may, perhaps, interest some of your readers.

The area of the province is about one-third larger than that of the German empire, while the population does not exceed 100,000. Yet this community—less than half the population of an ordinary English manufacturing town—and able only to sample to an infinitesimal extent of that vast area, exported last year, surplus products to the value of upwards of nine million dollars. The value of exports for the year ending 30th June, 1895, being \$9,114,058, and the value of imports, for the same period, being \$4,403,976.

Results, so exceptional, serve to indicate the extraordinary possibilities which await the judicious application of capital to that portion of the empire. Industries exist which are capable of large and profitable extension, and properties of great promise, only partially opened up, and whose owners are generally unable to develop them, without outside assistance, offer a ready field for the operations of development companies. Branch railways, projected and in the course of construction, are yearly bringing new areas within the range of promising investment. These districts, known to be rich in resources, are only partially explored, and present many opportunities for exploration and preliminary working, calculated to realize in the near future, most satisfactory returns upon the initial expenditure.

As a mining country, British Columbia has been known to the world, chiefly for its placer gold, and for its coal on Vancouver Island. The history of the province, since attention was first drawn to it by the gold excitement, less than forty years ago, shows that nearly all the exploration, up to within very recent years, had for its object the finding of placer gold. Those placers have yielded, during this period, gold to the value, approximately, of between fifty and sixty millions of dollars, and operations have chiefly been conducted through the crude medium of shovel and cradle, a method of working only applicable to an extremely limited portion of the auriferous gravels of the province. Hydraulic processes are now being applied to these benches and channels, and there is every reason to believe, when this system of mining is fairly inaugurated, that the yield will far outweigh

the results of the past. Previous to the completion of the Canadian Pacific Railway, little effort was made to discover the reefs and veins from which the streams originally received their gold, but attention is now being directed to this important subject, and facilities for the transport of heavy machinery will ensure the early development of reefs already discovered, some of which have assayed from \$350 to \$547 value, per ton of 2,000 pounds. In giving evidence before a committee of the House of Commons, a member of the Dominion Geological Survey said:—"After having travelled over one thousand miles through British Columbia, I can with safety say that there will yet be taken out of her mines wealth enough to build the Canadian Pacific Railway," an estimate of no mean consequence, considering that the cost of construction of that enterprise is believed to have been about \$200,000,000.

Silver has been discovered in several places, and its further discovery will probably show that it follows the same rules as in Nevada and Colorado. In the district of Kootenay, a good deal of development has been done within the last six months, and although exports of ore from that district, only commenced in December, 1893, the value of exports for the six months, to 31st May, 1894, was \$415,368, or 586,361 ounces. The exports for the month of May, 1895, alone, were 251,302 ounces, valued at \$158,014. Some of the shipments, from the Slocan division, averaged 214 ounces of silver to the ton, and 71½ per cent. of lead.

A quotation from the last report of the Victoria Board of Trade reads: "That profitable investments may be made in the mining industries of this province may be judged from the following result of the 'War Eagle' mine in West Kootenay, near the boundary line. The first cost and development work amounted to \$32,500. Shipments of ore commenced on January first last and \$82,500 were paid in dividends up to June 1st ultimo. Shipments of ore during June averaged 420 tons per week, at an average value of \$37 per ton. The ore is mined at \$9.50 per ton, freight and smelter charges amount to \$14 per ton additional." Authentically recorded assays, made in 1891, ran as high as 800 ounces, and in one case to 1,169 ounces per ton.

Among other minerals and metals of economic value which are known to exist in the province may be mentioned arsenic, molybdenum, bismuth, iron-pyrites, plumbago, nickel, asbestos, mica, nitre bitumen, amber and various kinds of precious stones and mineral waters. Building and ornamental materials in granite, marble, sandstone, limestone, slate and clays are abundant on the coast. Iron has been found in enormous quantities in various localities on the mainland, and also on Vancouver Island and on Queen Charlotte Islands. It is varied in character and excellent in quality, some of the magnetic iron ore being very fine. The ore is conveniently situated in several instances to limestone and coal. Smelters and blast furnaces on a large scale, if erected on the coast, would be a profitable investment.

Coal constitutes a very important factor in the exports of the province, and it abounds on Vancouver Island and Queen Charlotte Islands, and is also found on the mainland, but its practical mining is chiefly confined to the Vancouver and Comox Districts of Vancouver Island. The coal output during 1894 was 1,012,953 tons. The coal of British Columbia is superior to that found in the United States on the Pacific Coast. The estimated quantity of coal on Vancouver Island alone is practically inexhaustible.

In regard to this indispensable commodity the author of "Greater Britain" says: "The position of the various stores of coal on the Pacific is of extreme importance as an index to the future distribution of power in that portion of the world, but it is not enough to know where coal is to be found without looking to the quantity, quality, cheapness of labour and facilities of transport. The three countries which must rise to manufacturing greatness are Japan, British Columbia and New South Wales. The future of the Pacific shores is inevitably brilliant, but it is not New Zealand, the centre of the water hemisphere, which will

occupy the position which England has taken on the Atlantic, but some country such as Japan or Vancouver Island, jutting out into the ocean from Asia or from America, as England juts out from Europe."

In the value of the forests, no other province in Canada, no state in the American Union, and no country in Europe can compare with British Columbia. The varieties comprise Douglas fir, spruce, white pine, hemlock, cedar, cypress, maple, oak, yew, arbutis, ash, birch and poplar. It is estimated that there are between fifty billion and one hundred billion feet of the choicest timber in sight in the explored regions alone. In the eastern boundary districts of Canada and the United States, timber limits average from 9,000 to 15,000 feet per acre. On the Island of Vancouver and on the coast of the mainland they run from 20,000 to 50,000 feet per acre.

Several mills of large capacity are employed in the export trade, and ship principally to South America, Africa, China and the Australian Colonies. The most celebrated tree in British Columbia is the Douglas fir (*pseudotsuga douglassii*). It frequently grows 300 feet high, with a diameter of eight or nine feet. It is well adapted for ship building, bridge building and for general purposes. It is of great strength, and grows straight. Masts have been cut 130 feet long and forty-two inches in diameter, hewn octagonally. It is often obtained 150 feet free from knots, and has squared forty-five inches for a length of ninety feet. It is believed to be the strongest pine in existence; broken in a gale the stem will show the splinter for a height of at least twenty feet. It has been proved to bear more transverse strain than the oak. The cedar attains even a greater girth than the Douglas pine. It is chiefly employed in the manufacture of roofing, shingles and for fine dressed lumber, doors, frames, sashes, etc. The veining is very beautiful, and renders it well adapted for exterior work, and for which purpose it is largely used.



GLACIER ON SHOULDER OF MOUNT STEPHEN, ROCKY MOUNTAINS.

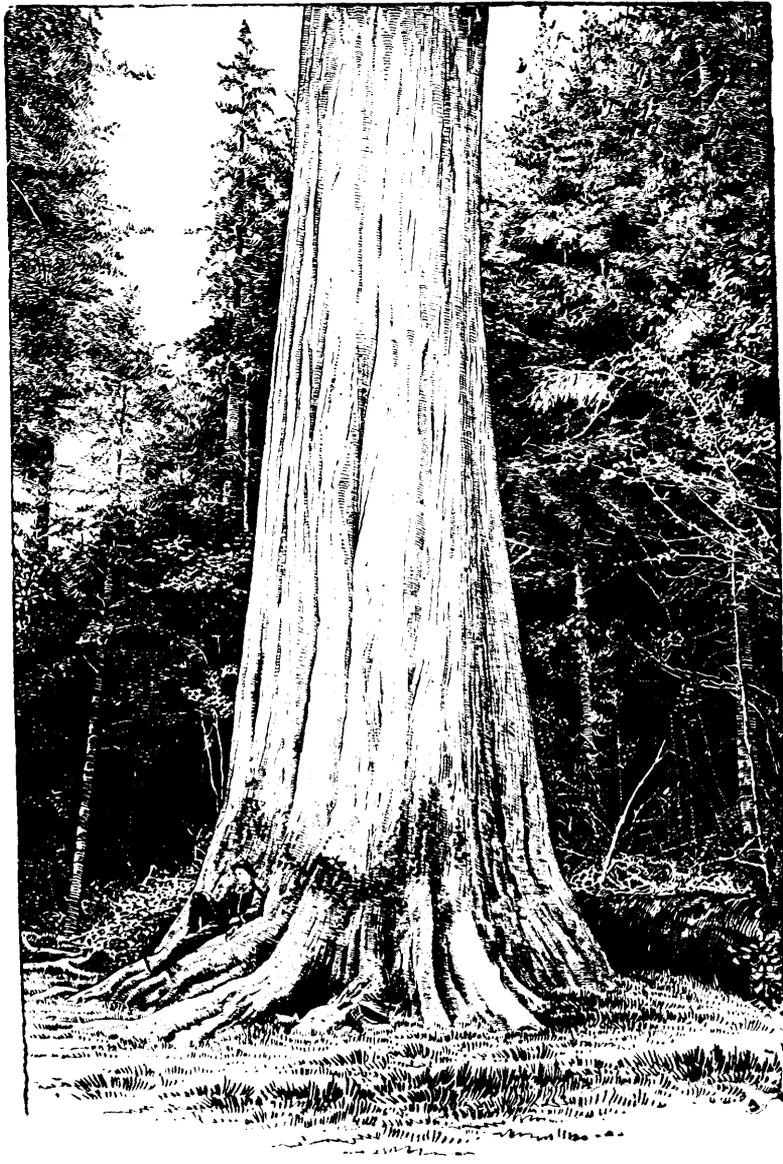
The fisheries of the province constitute one of its greatest sources of wealth, but so far as deep sea fishing is concerned it has scarcely been touched. During the past year halibut fishing has been prosecuted on a small scale, and shipments have been made to Boston and New York. A splendid field for the formation of a large joint stock company, to reap this "harvest of the sea," awaits some progressive individuals.

The annual report of the Department of Marine and Fisheries for 1891 thus refers to British Columbia: "These fisheries are probably the richest as well as the most varied in the world, but they have, until now, been very little developed. The seas, gulfs, bays, inlets, rivers and lakes of British Columbia swarm with prodigious numbers of fine food fishes, among these are the salmon, sturgeon, cod, halibut, herring, Oolachan, &c. The advantages which the province offers for the prosecution of the fishing industry are exceptionally good, with a coast line of 7,000 miles of sea-washed shore; it has innumerable islands, bays and fjords forming safe and accessible harbours for vessels of all sizes, and along this coast, within its territorial waters, are found fish and marrials in great variety and in greater numbers than in any other part of the world. These advantages and the development of the fishing industry, which, at no distant date must follow, point to a leading element in the commerce of British Columbia." The salmon fishing has received considerable attention for many years, and a large amount of capital is embarked in canning establishments; and it has proved in most, if not all cases, a most lucrative employment. The salmon pack for 1894 amounted to 494,371 cases, valued at \$2,362,714. It is strange, however, that equal attention has not been paid to the deep sea fisheries. Elsewhere in the present number of this RECORD will be found an imperfect list of the food fishes and oil-producing fishes of this province. The fur seal catch for 1894 amounted to 94,174 skins, and the estimate for 1895 is put at 72,414.

It may be correctly inferred from what has taken place in respect to the intermittent and spasmodic attempts to develop the deep sea fisheries of the province that, if they were developed on a large and systematic scale, the population of the Pacific Coast would soon be a large one. There are many industries incidental to the deep sea fisheries which would give employment to a large number of people, such as ship and boat building, fish-curing, barrel making, manufacture of fish products, manures, extraction of oil, &c. It is hoped that capital sufficient for the purpose will soon be interested.

Agriculture is, as yet, conducted on a very limited scale, compared with the area fit for cultivation. All the cereals and other crops of the temperate zone and fruits such as apples, peaches, plums, peaches, cherries and small fruits ripen to perfection. The land is admirably adapted for all kinds of stock-raising, and for dairy and poultry farming. Large areas for these purposes exist in the valleys of the interior and on Vancouver Island. Hops of excellent quality are grown on Vancouver Island near Victoria.

The climate of British Columbia may be said to be unsurpassed anywhere, the one great factor being the influence of the ocean. Behring Straits are so narrow and shallow that comparatively little of the icy Arctic current flows along the coast; on the other hand the effect of the Japanese current is felt around the Islands, and even to the remotest part of the interior, and it exerts an influence similar to that of the Gulf Stream on the coast of Great Britain. In the words of the Marquis of Lorne, in referring to the climate the conditions may be summed up: "No words can be too strong to express the charm of this delightful land, where the climate, softer and more constant than that of the south of England, ensures at all times of the year the full enjoyment of the wonderful loveliness of nature around you, even where it is coldest; spring comes in February, and the country is so divided into districts of greater dryness or greater moisture that a man may always choose whether to have a rain-fall small or great."



GIANT TREE, STANLEY PARK, VANCOUVER, B.C.

The difficulties in the past, in respect to the facilities for obtaining access to many parts of the province, are gradually being overcome. The Canadian Pacific Railway Company have in operation branches of their line leading to the mining centres, and, in conjunction with the inland waterways of the province, have made the transport of heavy machinery and goods a matter of much less cost than in the old days when everything had to be hauled by primitive methods. Much, however, remains to be done in the way of road building, and the opening up of trails and the Provincial Government are meeting these difficulties to the best of their ability and the means at their disposal. The sparseness of settlement of such a large area makes it a very difficult matter for the Government to devise ways and means to open up the country ahead of settlement. Where mining camps and promising places for settlement have lately been established the Provincial Government have always made good roads connecting these with the outer world. A good opportunity for the investment of capital lies in the direction of opening up and developing the

latent resources of the province. This cannot be adequately undertaken by individual effort, or by small companies, or even by the Provincial Government. A practical colonization scheme, coupled with a general development company, on a scale commensurate with the magnitude of the objects to be attained is deserving of the attention of capitalists. Immigration of an indiscriminate nature, such as poured into the United States and some parts of the Northwest, ought not to be encouraged, but a systematic opening up of the country, making accessible the mining and forest wealth, as well as the rich agricultural valleys and colonizing each portion so opened by the right class of settlers (fishermen, farmers, laborers and artisans) could, under proper regulations, be carried out by a large company. A proper system, if followed out, would thus prevent any undue immigration to special districts, and a careful balance of population preserved until each colony would, in the course of time, attract to its neighbourhood all who were required by the nature of the demands which their enterprise and success had created. Especially where a new mining region is opened up, stories get into the newspapers, sometimes exaggerated by repetition, which attract many of a class unsuited for the work needed, and those who cannot find employment endure hardships and get discouraged, whereas if they could be directed and diverted to the proper places needing their labour they would no doubt become prosperous and contented settlers.

For the profitable employment of British capital British Columbia offers one of the best fields, and the time is not far distant when its shores will be studded with numerous towns, its harbours filled with ships of all nations, and its commercial importance equal, if not surpass, the Atlantic seaboard. It is peculiarly adapted for the surplus population of the British Isles, not alone for the opportunities it offers to the industrial classes and capitalists, but also to all those who wish to see the prosperity of the empire. Its proximity to China and Japan with their teeming millions, and their recent awakening from the sleep of centuries, will make its 7,000 miles of coast line of some importance from a strategic point of view in the struggles that are yet to be. The completion, also, of the Trans-Siberia Railway, with its possibilities, are not to be overlooked. The Imperial Government, with its usual foresight, has undertaken extensive fortifications at Esquimalt, on Vancouver Island, which is also the coaling station and rendezvous of the Pacific fleet. Japan has made wonderful progress in the past twenty years; who knows what the next quarter of a century will show? Let us hope that the competition with the Pacific Coast will be a commercial one, and that we will be able to supply them with all they need, but if, in the progress of events, our coast should need protection from the Orient we appeal to Britain to settle our shores with her sons.

Capital, brains and brawn Britain has to superfluous; we are anxious for a share of these, and if we are supplied in this respect we may safely let the future take care of itself.

Nature has placed these immense resources on the shores of the Pacific for some wise purpose, and she bides her time for their utilization. Has that time arrived? Students of history read the answer in the signs of the times.

On Ore Treatment, Etc.

By W. PELLEW-HARVEY, F.C.S. (M. N. Eng. Inst. M. & M.E.)
VANCOUVER, B.C.

To fully describe the various processes necessary for the economic treatment of the products of the mines of British Columbia would require a series of articles of a detailed nature, as probably in no country are there so many varieties of ores to be found as in this province, where, on account of the comparative newness of the mining camps, communication is limited, and, in consequence, labour high; these two matters being important factors for consideration when the recovery of the metals from the ores produced is under discussion. The writer has had a long and varied experience with this subject, and will endeavour to

describe a few of the chief methods necessary when handling such ores as are met with here, the object being, as far as possible, to avoid technicalities, and to bring the subject within the range of the ordinary and casual reader.

It is generally known that the mining areas of this province are divided into districts, and these contain a great variety of minerals, and, consequently, varied methods of treatment are necessary. For instance, in West Kootenay we find rich silver lead ores or galenas, dry silver ores with gold, argentiferous copper ores, and the Rossland heavy sulphide ore or Pyrrhite, containing much iron, with some copper and gold. *East Kootenay* produces silver lead ores, copper ores, quartz, etc. *Cariboo* comes in with enormous reefs of low grade refractory quartz. *Yale*, quartz and copper ores. *Alberni*, quartz, and the coast quartz and copper.

For successful mining, in the first place it is not only necessary to be satisfied with the assay value of your ores, but also the treatment charge has to be carefully considered by an experienced metallurgist, so that the actual value of the parcel of the ore sold may be obtained, and upon this, after deducting the cost of mining and freight, too, if such is necessary, you base the amount of profit accruing. The writer, in his experience, has found that a miner overlooks the serious treatment charge as soon as he receives the usual assay certificate, and, for this reason, has made it a rule to append to such certificate an approximate estimate of the same. The West Kootenay lead ores are, in most cases, rich enough to stand freight and smelter charges, and, after deducting same, leave a very considerable margin of profit. The average assay being 150 ounces of silver per ton and 60 per cent. lead, there are, however, mines containing veins of concentrating ore, such a term being applied when the galena has associated with it portions of vein matter almost entirely free from valuable metals, and which, by the process named, have to be got rid of and the resulting concentrates saved and shipped as such to a smelter. The erubescite of the Silver King group contains a considerable percentage of copper, silver, and some gold, and requires smelting, as also does the ore of the Trail Creek camp, which, as already stated, is a very heavy sulphide ore, containing about 5 per cent. copper, and from \$10 to \$50 of gold per ton, therefore a general outline of smelting, as adapted to the ores in question must be given, and which, I trust, will be of interest to the readers of this articles.

SMELTING.

After the mine owner has arrived at an approximate estimate of the value of his ores, based on cost of mining and transportation, he then has to see what balance is left him when the extraction of the precious metals contained has been dealt with. These charges vary with the quality of the ore, and by this I mean the nearness in chemical composition to the standard required for economic smelting. This standard is based on the percentage of silica in comparison with the available iron and lime in the ore, with a fixed thirteen per cent. lead and five per cent. copper. An excess of zinc is charged at the rate of fifty cents per unit. Without going into further explanations, it must be understood that the supply of silica, iron and lime in the proportions named are necessary to bring about a complete reduction of the base and precious metals at the least possible cost for fuel and time.

When the ore leaves the mine, it is subjected to a rough check sampling; on arrival at the smelting works, it is carefully sampled and assayed for the gold, silver, lead, copper, iron, silica, zinc, etc., that it may contain, as well as the amount of moisture present, which latter is deducted from the weight of the bulk. Having determined these points, a reduction charge has to be made. It will be necessary to give an example as to how this is arrived at, before proceeding with the further treatment of the parcel, supposing the ore contains

Silver.	Lead.	Gold.	Silica.	Iron.	Zinc.
75 ounces.	13 per cent.	.5 ounces.	25 per cent.	35 per cent.	10 per cent.

The general debit will be:

Smelting,	\$1 50	
Roasting,	2 50	
Fluxing,	0 00	[There is ten per cent. more iron than silica]
Charges zinc,	5 00	[Ten per cent. at fifty cents a unit]
	<u> </u>	
	\$12 00	

Credit:

Gold,	50	[\$20 an ounce paid to the refiner; \$19 an ounce paid to the miner]
Iron,	1 00	
	<u> </u>	
	\$ 1 50	[Excess of ten per cent. over silica at ten cents per unit]
	<u> </u>	
	\$10 50	

This ore would cost for treatment \$10.50 per ton. The payment of lead being ninety per cent. of New York price on day of purchase; for silver, ninety-five per cent. of New York price on day of purchase: for gold, \$19 per ounce, if more than 0.13 is present.

In the case of siliceous ores, or those containing much quartz and very little lead, the following charges would be made:

Assay of ore—							
Silver.	Lead.	Gold.	Silica.	Iron.	Lime.	Zinc.	
250 oz.	4 per cent.	0	60 per cent.	10 per cent.	12 per cent.	6 per cent.	
Debit:							
Smelting,		\$4 50					
Roasting,		0 00					
Fluxing,		90	[Standard lead 13 per cent. minus 4 per cent. equals 9 units at 10 cents]				
Excess silica,	3 80	[60 per cent. iron and 22 per cent. lime; 60 minus 22 equals 38 units at 10 cents]					
Zinc,	3 00	[6 units at 50 cents]					
Grade silver,	3 00	[\$1 charged for every 50 ounces over 100 equals 150 at 1]					
		<u> </u>					
		\$15 20					

The value of such a parcel would be on the basis named.

Lead under 5 per cent., no pay.....	\$	
Silver—250 ounces at 67 cents equals \$167 50 less 5		134 50
per cent.....		<u> </u>
Gold, none.....		
		\$134 50
Smelting.....		15 20
		<u> </u>
		\$119 30

From the foregoing, it will be seen how necessary it is for the miner not merely to have an ordinary assay of his ore, but an exact and competent opinion concerning the smelting charges.

The ore, being valued and weighed, is now, if it is not exactly standard, made so by an addition of fluxes, and this in a smelter where many ores are received is easily accomplished.

The ore is then calcined, i.e., subjected to heat, when the whole of the volatile impurities, such as sulphur and arsenic, are liberated, or nearly so, and then introduced into the "water jacket" (an upright furnace, which is covered on the outside with plates of hollow iron; these are kept filled with water to protect them from the action of the heat). The usual mixture being for lead ores:

Seven hundred pounds of Standard ore; 600 lbs. of slag from previous operations; 70 lbs. of lime; 200 lbs. of skimmings from previous operations; 125 lbs. of scrap iron.

One hundred and fifty pounds of bar lead and two hundred pounds of coke are thrown in with the above a shovelful of one being followed by that of another in proportion to the quantities present. The furnace is then raised to a high temperature, and the heavy metallic particles fall to the bottom in a molten state and are extracted when the operation is complete. The base bullion is poured into moulds, and this contains the gold and silver.

As one charge is melted, another is added, and so on. The slag formed during this operation is run into big pots, and the matte, or regulus and speise, which comes out with it, having settled according to specific gravity, are separated when the whole is cool and re-smelted to extract any silver, gold or copper that it may contain. The base bullion produced is then refined, when the product—lead, silver and gold—is separated and run into bars. A description of the process would be most interesting, but space will not allow, and even this on lead smelting has to be a mere outline.

Copper ores are treated in a very similar way to those of lead, but in cases where low percentages exist, and these contained in sulphide ores, lixiviation methods are adopted, water is allowed to percolate the mass of ore, as a general rule, and sulphuric acid

is formed, this is passed through flumes and over pig iron, and the copper contained in the solution is precipitated as metallic copper, or sulphate of copper, whichever the case may be. This is then further treated, and the precipitate refined in the usual way.

The ores found in the Cariboo, Fairview, Boundary, Osoyoos, Yale, Alberni, and some in Nelson, however, are not adapted, as a rule, to any smelting process, but rather to milling as applied to amalgamation, chlorination, and cyaniding. The Cariboo mines produce large quantities of refractory ore, by this is meant that containing as an impurity of the rock itself, sulphur and arsenic; in such cases a portion only of the gold exists uncoated, the balance being invisible as such. These ores are usually treated by amalgamation, when there is a considerable loss, as the coated gold will not give itself up to mercury, because its surface is not directly exposed to it. Of late years, instead of roasting to drive this impurity away, it has been found cheaper to treat the tailings by subjecting them to the action of a solution of cyanide of potassium, which attacks the coated gold of the tailings and dissolves it, when the solution containing the precious metal is passed over zinc shavings, which is the means of precipitating it in metallic form; this is collected and melted, the solution passing beyond the zinc being free from valuable products, but ready for another set of tailings. The Yale ores, however, are mostly free. At Fairview, 60 per cent. of the gold contained only is free, and here the process named has been found to be equally as amenable as has been proved to be the case in the Cariboo. With Alberni ores some are too rich for any other treatment than "free milling," but the majority can only be handled economically by the use of an accessory to the amalgamator. As representative of the Cassel Gold Extracting Co. owning the MacArthur-Forrest process patents (cyanide), it may be said that my opinion on this subject is naturally in favor of cyanide. I have made a very careful investigation for some years as to the treatment of the gold ores of B.C. by this and other processes, and may say that the remarks published are based on impressions so gathered, and I trust that they will be accepted on their merits, which have further confirmation in the truth that in various parts of the world, according to the London Mining Journal, and other leading journals equally as unbiassed as this, gold mining has been revolutionized by its introduction. The chlorination process has been tried in this country, and found too expensive for commercial purposes. I should have liked very much an opportunity of giving further data on the subjects so briefly referred to, but as I have already stated, space is limited, and it will be understood by any who are familiar with metallurgical principles that to do justice to such a subject there should be no limit in the respect named, which, however, on the other hand, is unavoidable when writing for a journal whose columns are so well filled with other matters of more general interest than this.

Near Home.

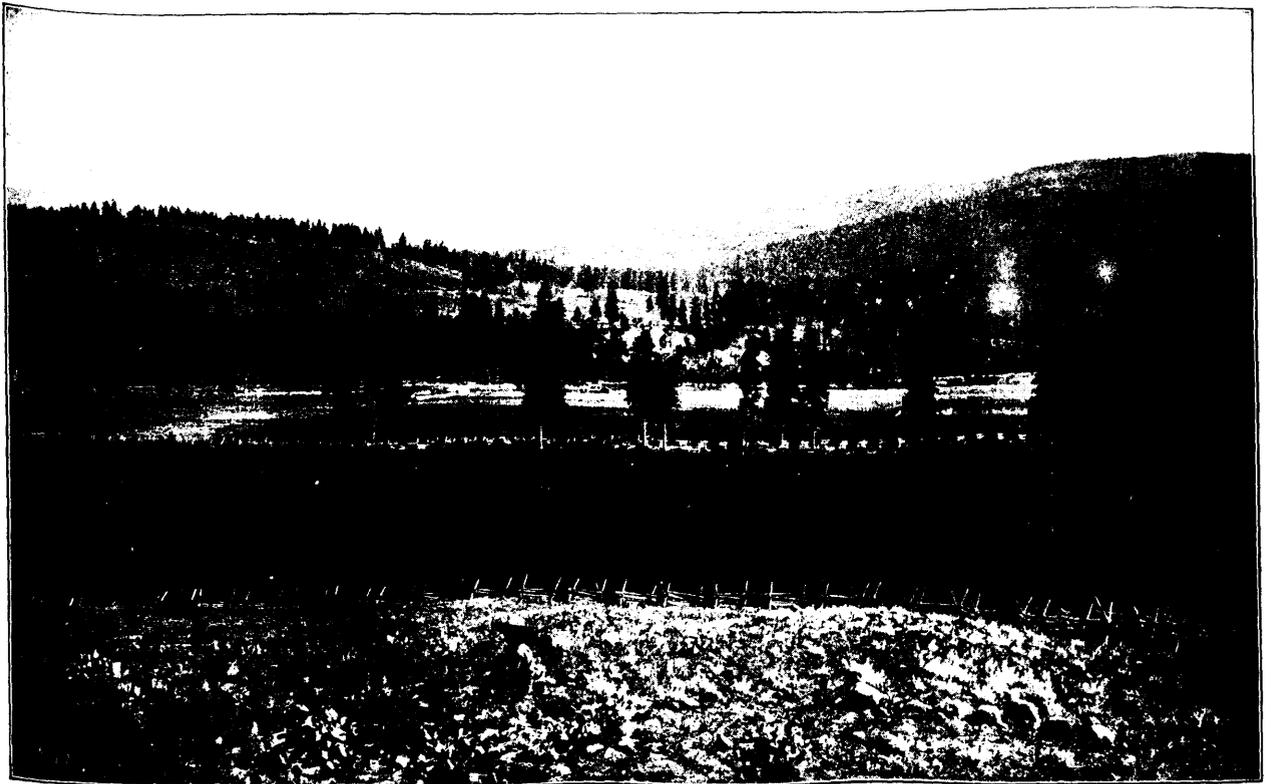
"You men larn to scrat afore you peck," is a good old Shropshire adage, and we all know that necessity is the mother of invention; it is also the origin of energy, and this province of British Columbia has to thank the necessity, which has been pinching us lately, for a very great deal of the work which has been done by prospectors and miners.

Men, or rather some men, still sniff at Alberni, Copper Island, Texada, Leech river, and the other districts near home, and consider that they have posed you by asking, "If there is really anything in these places so near home, why were they not found before? There were hundreds of good men here thirty years ago, California miners, do you suppose they would have passed these things if they had been anything in them? and as to that copper ledge, why my dear fellow, a shaft 200 feet deep was sunk on that about the time you were born, and the rock would not pay."

All this sounds very convincing, but luckily it can be answered. To begin with, all the facts are not as stated. The writer has the best authority, for instance, for saying, that there is no twenty foot shaft on the island, upon which the Wilson Brothers are working.



WEST KOOTENAY DISTRICT, COLUMBIA RIVER, BELOW REVELSTOKE.



YALE DISTRICT, SALMON VALLEY.



YALE DISTRICT, CHINAMAN WASHING GOLD ON FRASER RIVER

unless they shall have made one of that depth, by the time this article appears, still less of course is there one 200 feet deep.

Then, as to the California miners, it is true they were here, true that they were good men at their own business, *only*, just then, their business was not quartz mining, and, however good a man may be, he cannot ride through any part of Vancouver Island, that I know of, and see a ledge sticking out half a mile off. You might, possibly, do that in Colorado, but not here.

Here, to find a ledge, you must get your nose down to your work in very earnest. The density of the timber makes it hard to keep a true course, the soil, too, hides the formation, and you must, in many cases, absolutely scrape off the layer of moss with your pick, or your fingers, before you can see the rock beneath. This, then, is the answer to the scoffer. The ledges were not found, because no one was looking for quartz ledges in days when it would not pay to work such ledges, and, in Vancouver Island, people are peculiarly unlikely to find ledges unless they systematically search for them.

That search has now begun in real earnest. Alberni is about where Kootenay was five years ago, but she has the advantage of the second man on a snow trail. Kootenay has broken the road for her, and she will find the journey comparatively easy. Good looking rock keeps coming in from such points as Union, Fort Simpson, and the West Coast, whilst the activity on Wolf's Creek and the neighbourhood of Leach river, must remind old timers of the days when the colored man Booth found his seventy pound nugget on Leach river; when Bailey used to load up his Leach river pack train on Government street, at Campbell's Corner, and when we used to mint our own coin at New Westminster.

There is more reason for belief in the goldfields near home than for doubt. It is easy enough to explain why the quartz ledges of Vancouver Island have remained for thirty years undiscovered, or at least unworked; it is by no means easy to explain where the \$200,000 worth of gold came from, which passed from Leach river through the hands of the Bank (principally, I think) of British North America, if there are no good paying quartz ledges in the district.

Hard times have driven men to look for the gold at their feet, instead of searching for it in the pockets of guileless new comers, who wanted corner lots, and the fact that a very large proportion of the very best of our business men are actively engaged in searching for and developing the ledges of the island, gives us legitimate grounds for hoping that the "boundless resources of B.C.," of which we have heard so much, since the days of Lord Dufferin, until to-day, are really going to pay a dividend at last.

But the citizen who, content with speculation in town lots, and with money lending, still sits at his home and laughs at the men who are breaking rocks in the bush, is a poor friend to his country, and an enemy to his own interests.

CLIVE PHILLIPS-WOLLEY.

Investment in Mines.

BY CHARLES ST. BARBE.

The "outbreak," as it is called, of a new mining field is looked upon by a large class of people, who never saw a mine, as an infallible opportunity for making money. Well-established fields also attract capital from ignorant people, very largely from persons who have failed at some ordinary business, and who are ready to make a desperate plunge with what little capital they may have left. The spirit of gambling is pretty widely distributed throughout the human race and many a man, and woman, too, for that matter, who would be horrified at a game of poker, will fling money down a hole in the ground on the merest chance of getting it back a hundred fold. There is another class of investors, the man who has been brought up to the business and thoroughly understands it. He takes very few chances and seldom loses money. These lines are not penned for him.

In many countries the general public deal in mines through the medium of stock. For this purpose no knowledge of mining

is necessary, all that is required is to be in with the men who pull the strings. It is not, indeed, essential that the investor should even know where his mine is or whether it produces gold or silver or diamonds. In fact, the writer once enjoyed the spectacle of a whole city wildly gambling in the stocks of mines that actually had no existence at all. This class of investment, however, is little practiced here in British Columbia. A man has to buy a whole mine or a very considerable share in it, involving the risk of an indefinite and much larger sum than he pays down to acquire the property.

There is every indication that British Columbia will presently offer a rich field for mining investment of which the inhabitants of the province can, if they choose, have the greatest advantage. Kootenay and the country round the Kettle River are already recognized mining fields, and such promising finds have been made at Alberni, on the Fraser River, near the town of Vernon, and in the neighborhood of Victoria and Vancouver themselves, that the whole province will become one large mining field. Certain well-known names are omitted from this list because they are districts in which hydraulic mining alone is carried on, and with that class of investment this article does not deal. The very number of mining properties that are likely to be on the market is, in itself, a danger to the careless or ignorant investor. Nothing is easier to unscrupulous persons than to use a great mining excitement as a blind for the sale of wild cats.

Mining, to-day, has practically been reduced to a regular business, in which the chances are little greater than those risked by merchants and manufacturers all over the world. By the word mining is here meant quartz mining as opposed to hydraulic or placer mining.

Mining properties, which an intending buyer finds upon the market, are practically of three classes. First, there is the working mine, a going concern with machinery and buildings complete, and a history which may or may not be faithfully recorded in its books of account. A mining engineer can enter its workings and size up its value as a linen draper can take stock of the goods in his shop. No chance enters into the calculation. There are a few such mines in British Columbia to-day, apart from coal.

Secondly, there is the well developed prospect. In this the lode or vein or ore body has been laid bare at such well chosen points as to exhibit its size and continuity, but the mine is not in working condition. Machinery has to be obtained, possibly water laid on, roads made, and there is a certain element of chance in the further existence of the ore beyond the point at which it has been rendered visible by the development work.

Thirdly, there is the mere prospect, an outcropping ledge, or a vein just disclosed by a shallow shaft, a short tunnel, or even by an open cut. Its future is all conjecture. The ledge may contain gold, or it may not. The quantity of precious metal found in it at the surface may increase or may die out. A surface assay means nothing. The ledge itself may widen as it descends, or it may pinch out or stop short at a fault. All is chance and conjecture.

These are practically the three classes of mining investments that are to be found for sale. Large and wealthy syndicates usually prefer the first. The report of their mining engineer gives them private information of the amount of money still lying untouched in the bosom of the earth. He may detect some extravagance in the old method of working; he may know of some new device for extracting the ore or of treating it afterwards, which the old owners of the mine are in ignorance of. On his report the mine is bought, and very often properties that have never paid a cent, by means of new machinery or some new treatment, join the ranks of dividend payers.

The second class of properties is fairly numerous in British Columbia. As we have seen, the element of chance does enter in more or less to the calculation of their value, hence the system of bonding, and on the proportion of chance in the bargain, the proportion of cash paid down, the length of the bond and other details depend. A mining man who knows his business can probably suggest and get accepted such a working bond on a property

of this kind that throws nearly all the chance on to the shoulders of the seller.

The third class of investments, the mere prospects, are the least desirable of any. They are pure speculations in the fullest sense of the word and are heard more of, curiously enough, than the other and safer investments. They occur everywhere and they assay anywhere away up into the hundreds or even thousands of dollars; but it is hardly too much to say that only a few are worth the expense of a thousand dollars. At the same time this class of investment offers the highest rewards of any of the three, and is one that should by no means be neglected. It has the advantage, too, of being within the reach of men of small means and offers the best opportunity in the world to that large class of young men who seek the colonies and outlying parts of the empire with a few thousand, or even a hundred dollars in their pockets. Seldom, or never, are these chances to be picked up even in the mining towns themselves. To get them as they should be bought, and at a reasonable price, a man must put aside his good clothes, don the regulation "overalls" and go with the prospectors themselves into the remote fastness of the hills, into places like Cariboo Creek, Salmon River, South Slokan and he must take with him a certain amount of knowledge of the subject in order to know what he is looking at when anything is shown him.

These are shortly the main lines upon which a study of investment in mines should be based. There is no room within the limit of this article to go further into details, but if we are on the eve, as we hope and believe we are, of a great mining development, it is just as well to know, at any rate, how to reach the lower rungs of the ladder that will carry us to the top.

Alberni.

A PLAN TO PROVE ITS VALUE AS A GOLD FIELD.

In spite of the meagreness of information to hand about the Alberni mines, enough is known to justify the feeling of confidence in their richness and permanency that has been already expressed through the daily press. Not alone are the ledges so far discovered exceptionally wide, the outcroppings give evidence of wealth and strength, but no man, however experienced, can speak with absolute certainty of the value of an unprospected gold mine; the most he can do is to say that the ledges look well; the cavity rock is favorable; the assays are satisfactory, and the outlook is good, but if he values his reputation as a mining man he will hesitate long before advising his principals to pay a fancy price for a mine because a flattering assay has been obtained from the outcrop. Now, Alberni is practically an unprospected country; five thousand dollars will probably represent the entire sum spent on development there.

We know that satisfactory assays have been obtained from the ledges on Mineral Hill. We know, too, that a large extent of country has been gone over and inspected during last summer, and that every experienced man who has visited the section, when he returned, has been loud in his praises of the indications of wealth that abound on every side. But one and all unite in saying that the ledges must be sunk upon before a large amount of capital will be attracted there. To sink upon a ledge and take the chances of raising to a certain an uncertain proposition requires the expenditure of money—the amount depending generally upon the locality, the rate of wages and the cost of supplies. If, as is the case of Alberni, the district is easily accessible and by reason of its contiguity to salt water, freight charges will be light and wages low, and no climatic or topographical difficulties present themselves, the cost will be comparatively light. Under such conditions even low grade rock can be made to pay a handsome profit. From \$1,000 to \$2,000 should be sufficient to prospect any mine at Alberni, and make it a presentable proposition.

No gold field in the world possesses better facilities for test and development at a low cost. Kootenay is heavily handicapped by the charges that have to be paid on every pound of freight taken

into the mines; while the great ledges of Cariboo, where there are no railways, cannot be worked at all. The statement has been made (and there has been no attempt to controvert it) that the cost of opening the hydraulic claims at Horsefly and elsewhere in the Cariboo country has been sixty-five per cent. in excess of what the same work would have cost at Alberni. This startling statement will be taken into account by capitalists when casting about for a field for investment; and if only Victorians and others could be aroused to a sense of the importance of prospecting and testing at least one of the ledges on the West Coast, the advantages, in case of success, would be great, while the risk incurred would be small indeed. If this part of the province is to reap great and lasting benefit from an increase in our mining population, a determined effort must be made to open Alberni. The individual sums contributed need not be large, but care should be taken that they are expended intelligently. The first step necessary is to secure an option on a promising property, and then, by the contribution of a small sum from each member of a small syndicate, to ascertain what there really is beneath the surface. If the mine should turn out to be of little or no value the amount sacrificed would be so small as to create no hardship on the losers; but if, upon examination, the mine should be shown to be rich, the effects would be of a most beneficial character to every interest. Trade, manufactures, real estate—all would respond to the impulse of an important gold quartz development on the island, and Victoria would realize a golden harvest from an influx of people and capital. The winter months should be utilized in perfecting the arrangements, so that by early spring a start in the direction of development may be made. At this moment British Columbia is attracting the attention of the world. All eyes are turned towards her as a most promising field for investment. There is sure to be a large immigration of men with capital, seeking to invest their means in mining enterprises in this country. The successes at Kootenay have created widespread interest in the Pacific province. In New York, in London, Montreal and Toronto, British Columbia is on the tip of every tongue, and soon all interests will begin to move. Onward and upward will be the cry. Victorians must prepare to join the procession. They must try to be in the van. At least they should walk abreast with the people of any other locality. It will never do for them to be found bringing up the rear.

ALPHA.

The History of Our Mines.

No. 1.

(WRITTEN SPECIALLY FOR THE B.C. MINING RECORD.)

How recent the knowledge of our mineral wealth is, may be judged from the fact that Greenhow, in 1844, wrote as follows: "Oregon, indeed, contains land in small detached portions which may afford to the industrious cultivator the means of subsistence, and, also, perhaps, in time, of procuring some foreign luxuries; but it produces *no precious metals*, no opium, no cotton, no rice, no sugar, no coffee; nor is it like India, inhabited by a numerous population, who may easily be forced to labor for the benefit of a few. With regard to commerce, it offers no great advantages, present or immediately prospective. It contains no harbor in which articles of merchandise from other countries will probably at any future period, be deposited for re-exportation; while the extreme irregularity of its surface, and the obstructions to the navigation of its rivers, the removal of which is hopeless, forbid all expectation that the productions of China, or any other country bordering on the Pacific, will ever be transported across Oregon to the Atlantic regions of the continent."

Oregon as it was then known and the Oregon about which the above was written included all that vast region of the coast from the Columbia River to Alaska, or more widely speaking, what now constitutes Oregon, Washington and British Columbia, exclusive of the New Caledonia territory. Greenhow was arguing in connection with what then was a live subject of dispute between Great Britain and the United States, viz.: the Oregon boundary question, and was pointing out that from material considerations the possession of this vast country would be of no

particular advantage to either country and, except for political reasons, was not worth striving for; but he was an exceedingly well-informed man of his day and wrote conscientiously. How far he was mistaken on every count, it is not necessary to indicate here. In no one statement was he more mistaken than that there were "no precious metals."

It is true that the celebrated David Douglas, the botanist, unfortunate as he was gifted, in the early twenties discovered the well-known Blue Bell mine on Kootenay Lake, now the main base of supply for the Pilot Bay smelter, but that was an accidental circumstance that told the few little and the world nothing.

Just how, when and where gold was first discovered in British Columbia is not easy to state with precision, notwithstanding the many accounts we have of it.

It is related as an interesting phase of pioneer life that one of the Hudson Bay Co.'s employees, who had been born in the Northwest, and who had never seen gold in any form, was in Victoria when the first specimens of gold dust from British Columbia came into the possession of the officials there. He had come to the coast by way of New Caledonia, and, upon seeing the strange metal, he exclaimed that he had seen great rocks, almost mountains, of the stuff at one point away north in a defile, pass, or cañon of some kind. His duties prevented him from returning to find it, but he is said to live to this day, imbued with the firm belief that these blocks of glittering mineral were gold, and in the hopes of some day reaching the spot again and making himself fabulously rich. These blocks, if they exist at all, were in all probability pyrites. The story may not be true, but, if true, was but one phase of mining experience.

The early discoveries of gold in small quantities range between the years 1850 and 1857. In 1850 specimens came from Vancouver Island and Queen Charlotte Islands. An incipient mining boom took place at Queen Charlotte Islands in 1851 and 1852. Dr. Dawson says that from one little pocket or seam of gold in Gold Harbor, Moresby Island, between \$20,000 and \$75,000 were taken, or were reported to have been taken. It is also stated by others that more was lost in the harbor in the operation of mining than was recovered. However much or little, the "find" ended there. About the same time Indians from up the Skeena River brought pieces of gold to the Hudson Bay Co.'s fort, but the several expeditions to find it in places met with failure.

In the interior gold was found in the Natchez Pass and Similkameen as early as 1852, and in 1854, Colville Indians were known to have had nuggets in their possession. It is stated in Bancroft that Chief Trader McLean procured gold dust from Indians near Kamloops in 1852. Various authorities place the first finds at various places. However, between 1855 and 1857 discoveries were made on the Thompson, on the Fraser, on the Columbia and at Colville, and the news of these discoveries, together with the despatches of Governor Douglas soon attracted attention, to

British Columbia as a possible gold field. Exploiting for gold was stimulated by the California excitement, and the discovery of any new field was sure to produce a rush. Several parties prospected and worked on the Fraser and Thompson Rivers in 1857 with good success, and the news caused the Fraser River excitement, many of the participants in which are still living.

It is an old story now of how the people from San Francisco rushed in to Victoria by the thousands and set up their tents; of how they rushed up the Fraser River, often crossing the Gulf of Georgia in open boats; how others came up the tableland of the interior; how they crossed the Isthmus of Panama, and rounded the Cape; how they entered from Whatcom and plodded wearily overland from Eastern Canada. Victoria became a city in a day, and the mainland solitude was converted into a Crown Colony in a year. The vicissitudes and hardships of the eager throng as

they pushed their way up the turbulent Fraser with facilities of transport limited, provisions dear as gold itself, an unknown region to penetrate, and each a stranger among a strange crowd of adventurers, constitute a chapter of history in itself somewhat foreign to the history of mining development. We have to do with results rather than incidents.

Coal, still the predominant wealth-producer in minerals in this province, was known to exist at a much earlier period than was gold. It was discovered at Fort Rupert in 1835, and was used in small quantities after being treated. The Indians are credited with making its existence known to the whites, the circumstance being ascribed to an accident. Some development work was done at Fort Rupert by the Hudson's Bay Co., but the mines there were abandoned in 1851 for those at Nanaimo, which were discovered in a manner somewhat similar to those at Fort Rupert. The Indians had observed a blacksmith using coal and had informed him that there was plenty of such black stone at Nanaimo, which, upon investigation, proved to be true. The work of mining it was begun in 1851, and has never been discontinued.



FRASER RIVER, WITH SUSPENSION BRIDGE.

Coal is said to have been found at Burrard Inlet in an outcropping on the shore, and that H.M.S. *Plumper* obtained enough of it there to steam the ship to Nanaimo. No subsequent indications have been reported. Borings in the vicinity have proved unsuccessful in revealing a paying deposit.

The coal beds of Queen Charlotte, now attracting some attention, were discovered as far back as 1852, and anthracite was known to exist.

The finding of coal at Departure Bay by the late Hon. Robert Dunsmuir and its subsequent development by him into the great industry it is at present, and the fortune it brought with it, are too well-known to require detailed mention here. From 3,000 tons in 1852 the output has gradually risen to 1,000,000 tons (in round numbers) per annum.

In a subsequent number we shall trace a little further the development of our mining industry.

Dredging.

Since April last there has been in course of construction in Vancouver, B.C., a large mining machine for the B. C. Gold Dredging Company, under the direction of W. A. Shahan, superintendent of the company. The plant is located on a scow 30x100 feet. The cost complete will be about \$30,000. Mr. Shahan says the principle on which it is to be worked involves the use of a suction pump and vacuum chambers. Boulders up to twelve inches in diameter will come up through the pipe, but everything down to three inches in diameter will be screened out from the chambers back into the river again. Then, by the use of a suction pump, all the remaining material is carried up on to the grizzly bars, and everything down to pieces one-quarter of an inch in diameter is then removed and sent down to the river. The residue passes on to the sluice way. The material delivered by the grizzlies passes over a revolving cylinder on an endless apron. Beneath this apron, in a water-tight box, there are magnets set all the way from where the material will first drop on the apron to a point below where the water and gold sand will naturally flow off. By this means the black sand will be allowed to drop below, where an automatic carrier will pick it up and tote it along to a sack. When a sack is full its weight will cause a bell to ring and the attendant will remove it and put another sack on the rack. The grizzlies will discharge on both sides of the scow, so that there will be two sets of sluice boxes and two of the electro-magnetic black sand catchers. The plant has a capacity of 3,500 cubic yards every twenty-four hours. The main driving engine is a steeple compound with a driving capacity of 150 I. H. P. The scow is fitted with wrapping gear, steam windlasses and capstan. It has an electric plant, so that work can be carried on at night as well as by day. A crew of twelve men is sufficient for a twenty-four-hour shift. W. A. Shahan is superintendent of the company, J. E. W. McFarland president, and J. W. Campion secretary. The shareholders of the company recognize their scheme partakes of the nature of a gamble, but they think that the odds are on their side.

The small dredger that has lain at Lytton so long is reported as now working very successfully about six miles below the town. This dredger has been the nearest to a complete success of any so far built in the province.

There is a bar on the Quesnelle river, just below the cañon, ten miles from Quesnelle, that is covered with several feet of water. Chinamen who have tried it say six bits to the shovel can be gotten. The current is too swift and the water too deep to wing-dam or work. It ought to be a picnic for Col. Underwood's dredger if he can get into such ground as described.

A Multiplication of Names.

The Nelson *Miner* very properly calls attention to the duplication of names of places in British Columbia. In some cases they are more than duplicated, and to strangers not familiar with the country, this state of affairs is apt to lead to much confusion. To alter the present condition of matters would certainly require some radical changes to be made by the Survey Department, and it is not at all probable that they can be effected off-hand. But the question is assuredly worthy the attention of the authorities. Here is what the Nelson *Miner* has to say on the subject:—

Attention has often been called to the very poor system of applying local names that prevails in this country. In fact there is no system at all, and as the prospector is the most conservative of men he names every creek he comes to with one of the few titles of creeks in other places. In to-day's mining notes there is a report of the discovery of gold at Williams Creek, a tribute of Granite Creek, near Alberni. Now, in British Columbia there is a famous Williams Creek in Cariboo, and there is also a well-known Granite Creek in Similkameen, both noted for rich placer ground. There are, no doubt, many other creeks bearing the same names. Stony Creek, Rock Creek, Bear Creek, Sheep Creek and many others abound in every district. Now this multiplication of names is not only liable to lead to error, but can be made a very useful tool in the hands of dishonest persons. Who would

not look twice at a tempting offer of placer grounds on the far-famed Williams Creek? And "Oh, what a difference in the morning," when it was found that Williams Creek is at Alberni and not at Cariboo. We do not for a moment suggest that the Alberni stream may not be as rich as its namesake, but we have simply chosen the instance at random. We do not even know if there is any placer ground at all on the Island river. We commend the matter to the attention of the Survey Department.

Coke.

An extensive coking plant is to be erected at Anthracite on the main line of the Canadian Pacific Railway. This will prove to be of great benefit to smelters in this province, as the quality of the article at Anthracite has been found by tests to be excellent and the cost of producing and supplying it to our smelting works will be much less than they are at present paying for the imported article. Vancouver Island also produces very good coke, so that there is nothing in the way of profitably carrying on the work of smelting "near home" instead of sending our ores out of the country. Large samples of the Anthracite coal have recently been sent to England to be tested, and the results obtained have been most satisfactory. We trust those having the matter in hand at Anthracite will push the erection of the plant with all speed, and that before long we may see large smelting works erected at Vancouver and other points on the line of the C.P.R. We commend to the attention of the Government, also, the advisability of encouraging in every way possible the erection of smelters in the mining districts, as by this means the treasure of British Columbia will flow into the home rather than into the foreign markets.

The Lillooet, Fraser River & Cariboo Goldfields Co.

This company is losing no time in getting to work, and under the energetic management of Mr. F. S. Barnard have a large number of men employed at different points throughout the province. It is evident that the grass is not to be allowed to grow under their feet, as operations will be carried on actively during the coming winter. The attacks showered upon the company by the *Saturday Review*, followed up by a few papers here, and echoed by the *Mining Review* at Ottawa, which, by the way, has more interest in upholding phosphates than discussing gold mining in British Columbia, have fallen upon the management like water on a duck's back.

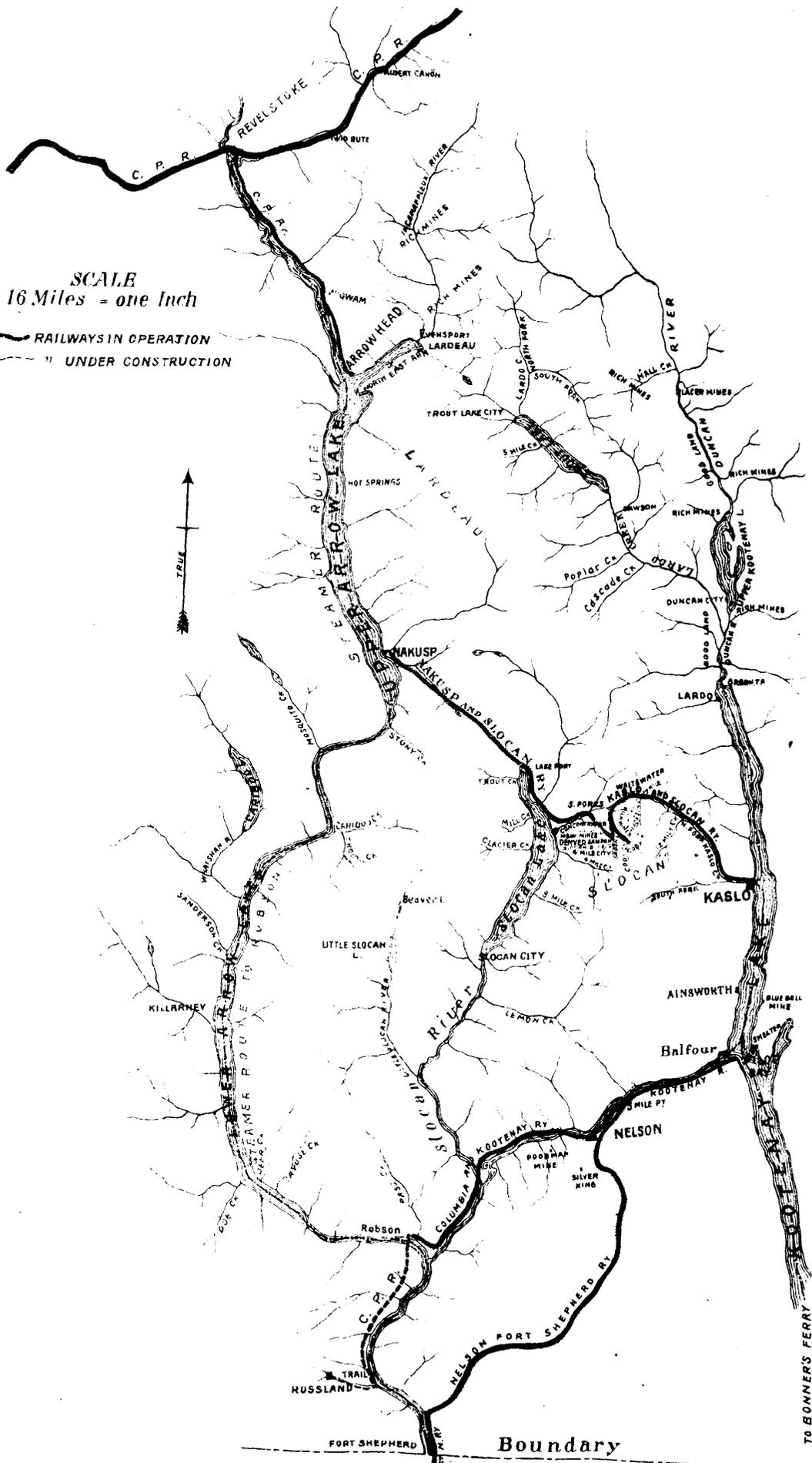
At Lillooet the Goldfields Company are opening up the Bonanza quartz reef, and have sunk some 125 feet on it already. It is expected that a large body of low grade gold ore will be found to exist in this mine, and that a few months' work will demonstrate the value of the property.

On Cayuse Creek, at Lillooet, a great deal of work has been done. The company have been engaged for some time in exploring for an old channel, and believe that they have now found it. They have, therefore, placed a pelton water wheel and powerful pumping machinery on the ground, which will enable them to work it to advantage. The value of this property may be judged when it is stated that the company have about two miles of the old channel, which is believed to be very rich, but which required large capital to work. Cayuse Creek has produced, from surface workings, at least half a million dollars since its discovery.

At Illecillewaet the company are engaged in sinking on the Lanark mine to prove ore to a depth of 400 feet, and are running a tunnel on the Isabella claim. On both these mines it is the intention of the company to keep men working all winter.

In the Lardeau District the Abbott group are being opened up, and a force of men will be employed on them all winter.

It will be seen, therefore, that the company is in active operation, prosecuting the work of development. The management has also secured options on several properties in Cariboo and in Kootenay, but do not expect to do much in developing these properties until spring.



SCALE
16 Miles = one Inch

RAILWAYS IN OPERATION

" UNDER CONSTRUCTION



Boundary

TO BONNERS FERRY

Railway Construction in Kootenay.



The completion of the extension of the Nakusp & Slocan branch of the Canadian Pacific Railway between Three Forks and Sandon has been of great benefit to mine owners and operators throughout the Slocan district. The completion of the Arrow Lake branch which, at time of writing, is expected to be in operation before many days, will ensure communication by the Canadian Pacific route to and from the Slocan district throughout the entire year. The value of this to mine owners is very great.

The extension of the Columbia & Kootenay branch of the Canadian Pacific Railway from Robson to a point below the mouth of the Kootenay River will establish communication between Rossland, one of the richest parts of the district, and all Canadian Pacific points during the year.

To Kaslo, the completion of the Kaslo & Slocan Railway means much. The work for which they have hoped and striven is an accomplished fact. A railway is in actual operation between the wharves on Kaslo Bay and Sandon, in the heart of the great Slocan silver mining region.

The line is somewhat of a novelty in British Columbia, being constructed on the narrow gauge (three feet six inches) system. Its tracks and cars, at first sight, look like playthings to people accustomed to the standard broad gauge of North America.

The depot has been built at the bottom of the hill, in the inner part of the harbor at Kaslo, and there substantial wharves are also constructed from which ore is already being shipped. Starting from this point the line curves round the bay at the back of Buchanan's sawmill, rising all the time, and runs into a Y at the opposite side of the bay. Here also the round house is erected, and a turntable is being put in. From this point the line again circles the bay at a considerably higher level than its first trip. It then proceeds up the valley of the Kaslo River, keeping to the main branch until Bear Lake is reached. The last three miles

are laid on a rather steep grade, but from Bear Lake right on to Sandon, the road is practically a dead level. The line is admirably constructed throughout, and compares more than favorably in this respect with many mountain lines. It runs into Sandon, and bends right around the town, coming in on the east side and finishing up on the west.

The Cody Creek extension is being rapidly pushed on. It leaves the main line some distance below Sandon, and rising rapidly, passes 300 feet above its present terminus.

General Superintendent Abbott is reported to have said that next year will see the construction of the long delayed railway through the Crow's Nest Pass, and also another branch to tap the rich mining regions of the Kootenay. This announcement is a confirmation of rumors which appeared to be reasonably well-founded. The policy of the company is, no doubt, induced by the excellent reports that continue to come from the Kootenay.

D. J. Munn, of New Westminster, one of the shareholders of the Kaslo & Slocan Railway, speaking recently regarding the future operations of that road, stated that the company was applying for power to extend the line from Sandon to Slocan Lake, so as to compete for the trade which will ensue from the many rich discoveries made upon the shores of that beautiful body of water during the past summer. The road would circle round Payne Mountain, touching the concentrator at New Duluth, and, keeping to the south side of Carpenter Creek, tap the Mountain Chief mine, pass through New Denver, and find terminal facilities for the present at Silverton, so as to command the Alpha, Fisher Maiden, and other Four Mile properties. This extension would most probably be undertaken in the spring. At New Denver it is reported that parties have approached A. McGillivray, to secure his interest in that townsite, on the strength of this projected move of the Kaslo road.

HAPPENINGS AT THE MINES.

ALBERNI.

It is stated that H. Abbott and other C.P.R. officials are securing claims in Alberni.

Work is steadily progressing in the tunnels of the Alberni and the Last Dollar claims. It is believed the latter contains the extension of the Alberni ledge.

It is also stated that Mr. Clemes, the Norman company's expert, desired to bond some of the Mineral Hill claims, while there recently.

A whole group of claims on Tumwater creek, is under offer to Montreal parties. If the deal goes through, it means the introduction of a large amount of money in their development.

W. Lorimer, who has a contract for building a trail up Granite creek to the Eureka claim at the head of the creek, some seven miles, has begun work.

A large consignment of steel pipes for the Cataract hydraulic claim on China creek, arrived down on the steamer Maude. As soon as these and the giant are placed in position, washing will begin.

James Brady, mining engineer, has made a visit to the Golden Eagle mine, it is understood in the interest of parties in the province.

CARIBOO.

The Chinese hydraulic claim on Slough creek, made another wash-up after thirteen days' run of eight hours per day, and the result was over \$2,800. This claim has this season been worked only in a small way, and washed up nearly \$9,000.

Work on Willow river has shut down, and Mr. Laird expects to go below soon and will visit his home in Chicago. The drift is in over 600 feet, and is on bed-rock. They are now ready to sink a shaft. The borings show that the depth of the shaft must be 140 feet, then a drift of 600 feet is expected to strike the rich gravel underlying the old river bed.

A shaft will soon be started on the property of the Peters creek mining company, a contract for the same having been let.

The Horse Fly Hydraulic Gold Mining Company has closed down for the season, and many of the men employed are coming down the road. Some of them have returned to their homes in California. Nearly all expressed themselves as well pleased with the country, and will return in the spring.

Parties are sinking on a bench above Slough Creek with a view of striking an old channel that they believe cuts through at this point. If this theory is right they will be richly repaid for their labor. Lightning Creek will next season be worked as it has not been for many years. Several companies of which we cannot yet give the particulars, are expected to begin operations on a large scale. Lightning, second only to Williams Creek in the output of Cariboo, has produced eleven millions of dollars, and this out of only about three miles of creek bed. A large part of the three miles was not worked out on account of water. A bedrock tunnel is practicable, and the company putting one in will take out many millions of gold. So far as is known the creek is equally rich below, although somewhat deeper to bedrock, and by a drainage tunnel to dry the ground there is no reason why as good ground should not be found down the creek for many miles as where it has been already worked.

It is very probable that the old channel in the Slough Creek Company's works has been located, bedrock having been reached in the hole started the last of July at a depth of 287 feet. Holes were drilled a hundred feet or so on each side of the deep hole and bedrock tapped in one at 255 feet, and the other at some less depth. A profile map of cross sections showing borings, shafts and drifts gives one a very clear idea of the work being done at Slough Creek.

The works are right where a number of creeks centre and there should, by all calculations, be a veritable nest of gold under where the development is being done. Every creek that empties into Slough Creek has been rich. We were shown some nuggets taken from Nelson Creek, one of the tributaries, this summer. One ragged piece of gold was worth over \$80. Others from \$10 to \$40 were in the same collection. The Chinese who worked on the benches made excellent incomes for the short season of four or five weeks, while their indifferent supply of water held out, and all the work ever done around Slough Creek paid very well, and, when the bedrock shaft and tunnel are run, the deep diggings on Slough Creek will prove all that the company has ever claimed.

On the whole the season's work at Slough Creek has been quite successful, and from the knowledge gained this year the next season's work can be laid out and plans accurately formed. The bedrock shaft and tunnel will be started in the spring or as soon as the tunnel now making for the mouth of Nelson Creek reaches bedrock.

It is reported that Messrs. Jones and Dunn, who have been working on Big Bar, on the Fraser river, the past summer, have made a good clean-up and are well satisfied with their season's work.

The claim across the Fraser owned by Mr. Law is about to be vigorously worked and preparation is being made to commence the opening of the ground. This location is supposed to be an old channel of the Fraser, and very rich prospects give every encouragement to expend energy and capital on its development.

The prospecting work on the Beaver Mouth Hydraulic mine has been discontinued for the season. The results have been very satisfactory. No. 1 shaft is down 133 feet, and prospects well all the way down. A good average was obtained, and that shaft much more than realized all expectations. No. 2 shaft is down eighty-nine feet, bedrock being reached at that depth. Good prospects were found on bedrock in No. 2. No. 3 shaft is down 101 feet, but no bedrock has been reached, but gold was found all the way down.

Stanley was the scene of a strike lately, which had all the evidences which may go far to revive all the old-time glories of Lightning Creek, when the Van Winkle, Vulcan and others were

turning out ounces by the thousand. The South Wales Company, composed of Messrs. Jones, Price and Tregillies, have been at work for over five years on their shaft, tunnels and connections, and there is every appearance of their having struck a rich mine.

Not only are the owners, but all residents of the neighborhood, highly elated over the strike, as it means a rise in the waning fortunes of old Stanley. The patience of these men has been almost incredible, and they deserve well at the hands of dame fortune. Many attempts were made in the old days to reach the ground recently opened up, all agreeing that it should be extremely rich.

There have been twenty men at work on Pine and Summit Creeks the past season, and more than wages were made by all. Next year will see a general activity in the creek, and a large amount of gold will be taken out.

EAST KOOTENAY.

Mr. Dan Mann, who has for years been connected with great railway enterprises in different parts of Canada, has now turned his attention towards the mining districts of British Columbia. Mr. Mann purchased the Carnation mine, near Fort Steele, in the East Kootenay, in October, 1892, for \$300, and after operating it this summer he says he would not take, to-day, \$50,000 for his bargain. The vein is visible in places at a width of sixty-five feet, and shipping ore is found to the extent of twenty-four feet, ninety per cent. of which can be sent to the smelter. Mr. Mann calls this a little mine, adding that work can be carried on all the year round, and, with fifty men and twenty teams employed, he expects next year to ship 9,000 tons of ore, valued at close on to \$70 per ton.

The component parts of this ore is "about sixty-seven per cent. of lead and forty-five ozs. of silver."

Messrs. Finch and Cronin are hard at work on the St. Eugene mine. The ledge is of enormous size, and crops out for half a mile. Ten men will be worked all winter.

Messrs. Jones and McNeish have five men at work on the Hidden Trail, a valuable copper claim on the Spillimichene mountain. There is a fine showing of ore on this claim, the vein measuring fifty feet between walls; three or four feet average from thirty to forty per cent. copper, and twenty feet averaging from ten to twelve per cent., the balance being gangue. From ten to twelve tons of ore are already on the dump, and the owners intend working all winter. The claim is about seven miles distant from the Columbia River; first-class water power and abundance of timber is to be had close at hand.

The property was visited recently by Messrs. D. D. Mann and Wm. Mackenzie, who were highly pleased with the prospects and secured an option on the claim till December 7th. An expert will be sent in to examine the property, and if he reports favorably one of the most important mining deals in the history of the country will probably be consummated. It is the intention of the owners, however, if no deal is made with Messrs. Mann and Mackenzie, to greatly increase their force of men and make a shipment of ore early in the spring. They are to be commended for their pluck, which will no doubt in due time be amply rewarded.

There are twelve claims located on the Spillimachene mountains. The first locations were made in 1881. There is considerable work done on these claims. The ore is copper carbonate, and a low grade galena. It is reported that D. D. Mann has an option on two claims, and the consideration is \$30,000.

The Hidden hand and the Iron Mask were discovered last July on the east fork of the Wild Horse. The property is a large lead some fifty feet in width, and has a heavy iron cape eight or ten feet thick. Assays show that the ore carries gold to the value of \$5 with seventeen ounces in silver and ten per cent. in nickel. Very little work has been done this season, except to cut a trail from the forks of Wild Horse up the creek some three miles.

There have been thirty-two locations made in the vicinity of the North Star. Ore is being taken out on the Deance, Midnight, Big Chief, Eureka and the Vermont Boy. The Stewwinder, Utopia, Quantral and the All Over have a good showing of mineral.

From the Vermont Creek claims there will be at least one hundred tons of high grade galena, averaging 100 ounces in silver and forty-five per cent. lead, shipped during the winter.

About one mile from the Iron Mask down the creek we find the Sweepstakes, Maud S and Nancy Hanks. The ore on these claims is an iron sulphuret. The lead is a large one, nearly four hundred feet in width, carrying gold and silver. Fourteen assays give an average of \$17.80 to the ton. The ore is very valuable as a flux for lead ores, the gold and silver gives it an increased value.

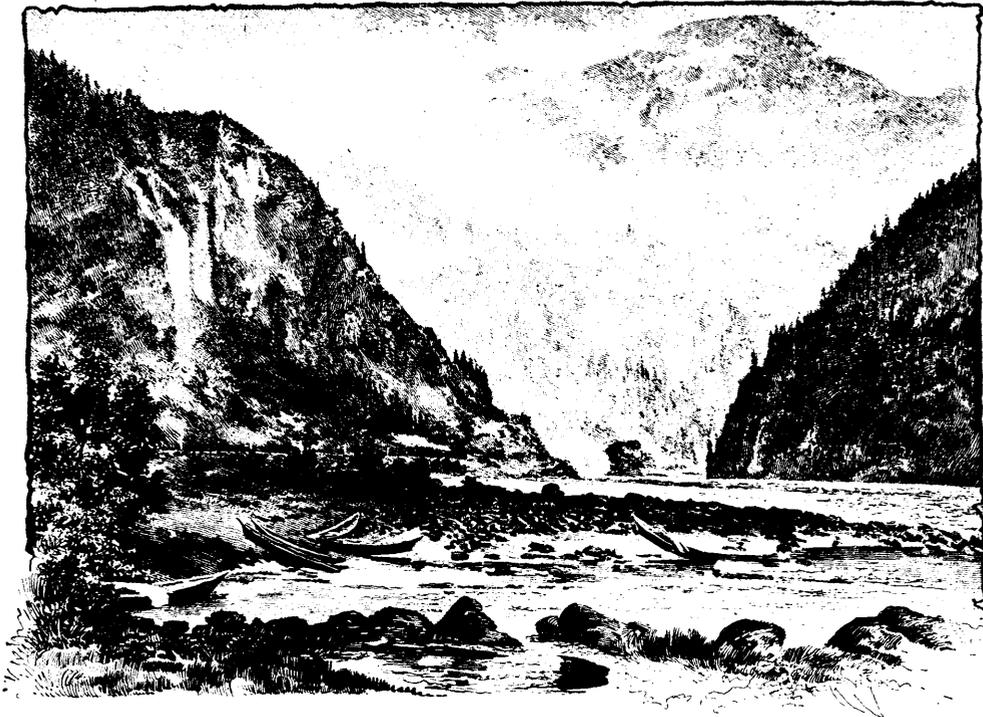
WEST KOOTENAY.

The War Eagle people have finally been relieved from paying the salary of the customs officer of the Dominion Government at Rossland. This salary, amounting to \$90 per month, has been paid regularly up to the present time by the War Eagle Company ever since the office was established.

The Hattie Brown is a claim that is rewarding the owner for his work. It was sold not long ago to Mr. Mead for the sum of \$2,500. Two days after the purchase, a ledge with two feet of pay ore was struck, and now a further strike has been made of six feet of arsenical iron on the surface.

The Josie, which has always held the reputation of being one of the richest mines in the camp in comparison to her size, has again made a strike of rich ore. This time it is in the form of oxidized mineral, carrying gold to the extent of fifty odd ounces to the ton. Nearly 300 sacks of it have already been shipped.

The ore shipped by the Evening Star Company yielded \$33 per ton in gold at the smelter.



SCENE ON THE FRASER RIVER.

The Jumbo, not far from the Gold Hill, is expected to take front rank when more developed. A tunnel is being driven to meet the ore body met with in the shaft, and the face of the tunnel shows well in ore so far as has been driven. All the men it is possible to work will be put on for the winter.

Although the prospecting season is virtually over for this year, still a few straggling records are being made. Large as has been the number of claims recorded this summer, there is little doubt that next year's work by the prospectors will be just as fruitful, as there is a very large scope of territory to the north, west and east of our established camps that has virtually not as yet been prospected.

A chemical analysis of some of the mineral taken from the Lakeview claim. It contains

Lead.....	52.2 per cent.
Silver.....	1.2 per cent.
Tellurium.....	46.46 per cent.
Gold.....	a trace

Crude tellurium is quoted at \$2.75 an ounce, and the chemically pure fused metal at \$16.55 per ounce. The market is very limited,

as the metal finds no application in the arts, and is supplied chiefly from that obtained in the electrolytic refining of copper matte, which contains on an average twelve ounces of tellurium for each ton of copper.

The force at the Ainsworth mine has been reduced about one-half, and the concentrator closed down until spring. The mine is reported as looking well, and no fear is entertained of its not being a paying concern.

The Skyline is also reported to be in good shape. The working force is only thirteen men, three of whom knock down all the ore three four-horse teams can haul to the wharf at Ainsworth. The vein is from ten to fifteen feet wide, and a streak of considerable width carries ore that runs between 600 and 700 ounces silver to the ton. The output of both No. 1 and the Skyline goes to the smelter at Pilot Bay.

A concentrator will be built at the Highland, near Ainsworth, in the spring. This is one of the oldest properties in the country.

It is reported that work will be resumed on the Black Diamond, at Ainsworth, this winter.

The preliminary steps have been taken for the establishment of a 200 ton matting plant in the immediate vicinity of Rossland, for the reduction of Trail creek ores. This comes as a result of the visit made here recently by Mr. Larsen of Colorado. Mr. Larsen spent a week in an investigation of the ores of this camp. He became thoroughly convinced that they are subject to concentration by the process now in use in the Bimetallic smelter at Leadville. Mr. Larsen came to the conclusion he could throw from six to ten tons of ore into one of copper matte, at a cost not

The following shipments of bullion and ore from smelters and mines in Southern Kootenay took place since last report:

	Tons.	Value.
Smelter, Pilot Bay.....	140	\$14,000
Slocan Star, Sandon.....	54	5,400
Alamo and concentrator.....	60	6,000
Mountain Chief, New Denver.....	26	2,000
War Eagle, Rossland.....	421	21,050
Le Roi, Rossland.....	270	13,500
Josie, Rossland.....	44	2,200
Cliff, Rossland.....	38	1,900
Evening Star, Rossland.....	20	1,000
Iron Horse, Rossland.....	15	750
Total.....	1,088	\$68,400
Total so far for 1895.....	26,330	\$2,015,590

Some very rich decomposed rock is at present being sacked at the Josie. It is found at the surface, over the entrance to the higher tunnel, and right below the soil, which is less than two feet in depth at that point. The ore is very much like yellow ochre, and crumbles with very little pressure between the fingers. It assays about fifty ounces of gold to the ton, and 2,600 sacks of it have been shipped. In looking at the stuff one would never dream it was so valuable. In fact, the average individual would pass it by as utterly worthless. A large quantity still remains to be uncovered.

to exceed \$4 per ton. He went from Rossland to Spokane, where he laid plans before several substantial mine owners, who have Trail creek interests, and he met with reasonable encouragement. It has been determined to form a company with a capital of \$250,000, and to erect a plant with a capacity of 200 tons a day. The site for the works has not yet been selected, but it will probably be not far from Center Star gulch.

There are now about 250 men employed in the different mines about Rossland, and this number will probably be largely augmented before the first of the year.

It is reported that the charge for treatment at the Pilot Bay smelter has been considerably reduced, and in consequence a good deal more ore is offered. This will be a great boon to many owners of the smaller and lower grade claims.

Advices from Ainsworth indicate that this camp is now shipping 200 tons per week with prospects of a large increase before the first of January. A great deal of work is being done and the results are good. A fine vein has been opened on the Old Jeff, while doing assessment work. The contractors, who are driving the 100-foot shaft in the Highlander tunnel, have been obliged to stop for a time, water having been struck at the 68-foot level. They say there are good indications of a rich vein below. The Skyline people are shipping some very rich ore to Pilot Bay, the quantity improving as they go down.

About eighty claims have been located in the White Grouse country this summer, making in all some 200 locations. The ledges are all strong. Assays of rock from different parts of the Storm King ledge show 110 ounces in silver, 22 per cent. copper and \$10 in gold. Very little work will be done, however, this winter.

Although the Big Bend has not come up to the very sanguine expectations of last spring, there is every indication at present that next spring will see active operations commenced on new ground, principally quartz. There are ledges of ore fully better than those of Trail Creek which can be worked to advantage even as facilities are now, but there are good prospects of better facilities in the near future.

A tram road is being built from Trail to the mines at Rossland, and will be run by electricity. A passenger car is to be attached to the train. The rails are all on the ground and are the same that were formerly used between Dunmore and Lethbridge, Alta.

The Le Roi Mining and Milling Company have paid another dividend on \$500,000 capital.

Loring & Crane, for themselves and other Spokane parties, have purchased the interest of Dr. E. J. Smith and R. N. Gage, of Wisconsin, in the Josie Mining Co., Trail Creek, paying therefor \$37,500. Two years ago these eastern parties joined Loring and Crane in buying the Josie mine, and put into the deal \$6,000, for which they received the amount above stated.

The owners of the Nickle Plate have at last been rewarded for their perseverance. They have been following a small stringer of ore down, and now at a depth of 100 feet have struck a four foot body of ore, which assays over \$100 per ton.

There is some talk of a Denver smelting company building a smelter at the forks of Trail Creek, which will be most convenient for the lower grade mines.

The shaft on the Le Roi mine, at Rossland, is down 400 feet, and the ore taken from the bottom is the highest grade yet taken from the mine. With the exception of the Slocan Star, in Slocan district, the Le Roi is now opened to the greatest depth of any mine in Kootenay.

The owners of the American have just completed a rawhide trail from their claim to Trout Lake—two miles and a half; thirteen men were employed on the job. This staff is now at work erecting the necessary buildings. Work will be prosecuted, and ore shipments made throughout the winter.

The Columbia River Hydraulic Mining Co., have given F. G. Kegler a contract for some \$3,000 worth of work on their property in the Big Bend, which will be done during the winter. The lumber will be cut in the vicinity, and five men employed on the job. Prof. Nason, who has been conducting the operations of the

company, will go east for the winter, returning next May with the necessary machinery. Two hydraulics and 3,400 feet of pipe have already been ordered.

The Gold Yam, a placer proposition on Carnes Creek, will be worked with eight men this winter. Messrs. Howe, Anderson and Bailey returned lately from Tacoma, and are getting their supplies ready.

The sale of the Cliff mine and the St. Elmo Consolidated to the large English syndicate, of which Frank S. Barnard, M.P., of Victoria, is the representative, is one of the largest mining transactions that has ever taken place in the Pacific Northwest. The consideration of the sale is \$150,000 for the Cliff, and \$75,000 for the St. Elmo Consolidated, in the following payments: \$1,000 cash, \$34,000 on December 1st, \$50,000 on June 1st, 1896, and the final payment, \$140,000 in December, of next year.

Information from Nakusp states that the excitement over the mineral discoveries, at the head of Lower Arrow Lake, still continues. A large number of claims have been staked out, and the Government agent has had his hands full to keep up the records. The finds have been made close to the lake shore, and are easy of access. A townsite has been laid out near by and dubbed Needle City. No lots have, as yet, been placed on the market. The country below Nakusp is being looked upon with increasing confidence.

If the C.P.R. does not build into Rossland this year, the tool of the iron horse will be heard early in the spring. Division Superintendent Marpole and other officials have selected the south half of blocks 25, 30, and 39, for a site for a freight and passenger depot. This property is only a block and a half from Columbia Avenue, the principal business street, and is very desirable. The selection of the depot grounds by the C.P.R., seems to guarantee that it will build this fall or early in the spring.

The asbestos find at Trout Lake has attracted considerable attention from outside, and several letters of enquiry have been received from parties desirous of investigating its possibilities. The discovery was made too late in the season to permit of work being done on it this year, but the owners, Messrs. Abrahamson Bros., intend opening it up as soon as possible next year, when a trial shipment will be made. Expert opinion has been obtained on several samples, and it is pronounced to be of a very high grade.

The flume and tramway are finished at the Slocan Star, and the concentrator building is enclosed. More men are being put to work, and the force at the concentrator and mine this winter will be from sixty to one hundred men. Ore is being loaded on the cars of the K. & S. Railway at Sandon, and this mine will make large shipments this winter to the smelter at Tacoma.

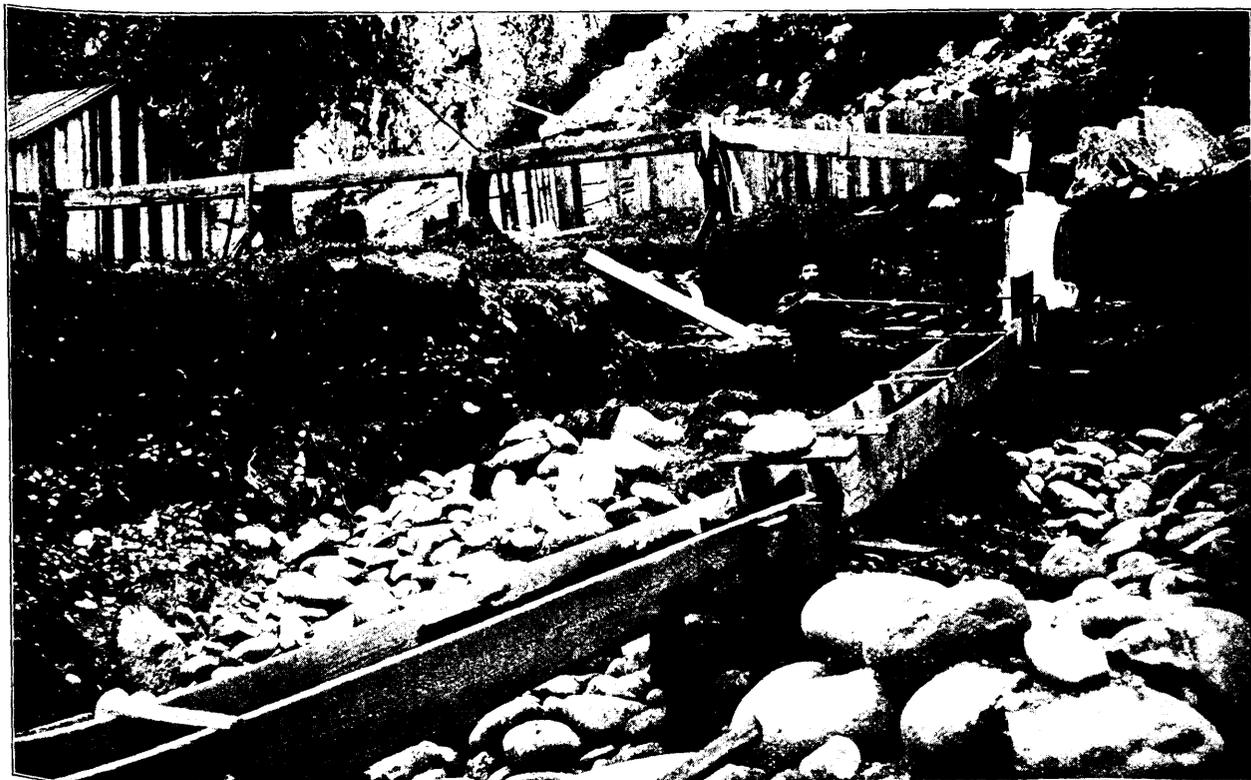
The Alamo has forty men working, which is the largest number employed in any silver mine in Canada. The Idaho has seven men, and the Cumberland twenty.

The Alamo is 1,000 tons of ore ahead of the transport facilities. Hugh Mann commenced on Monday to haul with sleighs to the tramway, and the danger of an ore blockade is past.

About eighty sacks have been packed from the Exchange, on Dayton Creek, to Slocan City. Four men are working on this claim, and they have driven a tunnel sixteen feet, and have an open cut about twenty feet in width.

The tramway from the Silver King mine has commenced regular work. The contractors have to keep it in order for ninety days, when it is handed over to the company. The ore bins are not constructed to shoot the ore out into the trucks, as is usually the case, but it will have to be shoveled up presumably by hand. The rest of the works are rapidly proceeding. An excellent site for the stack has been found on a solid granite bluff, a little above the works, and this is now being cleared and levelled; 250,000 bricks have been purchased in Colville, and are now arriving by every train, and 50,000 have also been obtained on the spot. The stack when finished will be 130 feet high. The grading of the railway approach is nearly completed. Two trestles have been waiting the arrival of timber, which is now on the spot.

The Hall Mines, Limited, is the largest single employer of labor in Kootenay. Its pay-roll for the month of October amounted to



PLACER MINING IN LILLOOET DISTRICT.



HYDRAULIC GOLD WASHINGS ON WILD HORSE CREEK VALLEY IN EAST KOOTENAY.



WEST KOOTENAY—KOOTENAY LAKE ABOVE AINSWORTH, LOOKING NORTH.

between \$14,000 and \$15,000. The foundations for the smelter building are nearly all in; the frame of the engine and boiler rooms is up, as is the frame of the assay office. The boiler is bricked in, and the foundation for the engine is finished. The cast-iron portion of the water-jacket is in place, and the flue-dust chamber is nearly completed. A temporary stack of galvanized iron will be put up owing to the fact that a sufficient quantity of brick of a good quality cannot be procured in time. The smelter will be in operation, it is said, by the latter end of this month.

The management of the Silver King have decided to close down the mine until the 1st January. The ore bins at the mine are full, and there are 800 tons of ore upon the dump. The tramway has begun to transfer some of this to the lower bins, but until the smelter is ready and begins to draw upon these later, it has been thought that it is useless expense to make a further accumulation.

Some twenty-five or thirty men are now at work building a road to, and putting up bunk and shaft houses upon the Winnipeg claim in Wellington camp, the property recently acquired by Marcus Daly.

A sample of the Highland Queen ore, taken to the coast by Mr. R. Woods, assayed \$263 to the ton. This ledge of ore is situated in Providence camp, three or four miles above Boundary Falls, and is owned by Messrs. C. L. Thomet and R. Stuart. As the ledge is about two feet wide and solidly mineralized, it is reasonable to suppose this is shipping ore.

The Golden Crown, said to be one of the best properties in the district, has been bonded for about \$35,000 by Mr. Toole. This claim is near the Winnipeg and Calumet.

On the North Fork of Kettle river claims are being staked, many of them in sight of Grand Forks. On one claim the owners start in on solid mineral at the surface.

For many years past coal has been known to exist at Rock Creek, it having been discovered by miners while working placer or hydraulic diggings. Now, however, parties are applying for licenses to prospect, and before long the coal reefs which undoubtedly underlie the whole of the Kettle River valley, will receive expert attention, and be made to contribute to the usefulness and wealth of those who are strenuously endeavoring to develop this portion of British Columbia.

Arrangements have been completed for the erection of a large smelter in the Boundary Creek country by American capitalists. The smelter will be an immense concern, and modern in every respect.

W. T. Smith, who has charge of the interests of Farrel & Midgeon, has purchased outright the Snowshoe claim in Greenwood camp, paying therefore \$10,000; also a half interest in the Big Copper, in Copper camp, for which he paid \$18,000. It is reported that the Rawhide was another purchase, but the price paid could not be ascertained.

The Lake View ledge has improved very much in appearance. It is becoming more mineralized and considerable free gold appears. A soft tin-like mineral occurs in considerable abundance throughout the vein. This has been examined by Mr. Guess, the assayer here, and found to be native tellurium. It contained a little lead, however, and may, he thinks, prove on further examination to be the mineral altaite, a telluride of lead. Neither of these minerals, it is said, have hitherto been found occurring in Canada, and the discovery of either is, therefore, of considerable scientific interest.

The Hall Mines, Limited, Aerial Wire Tramway, four and one half miles long, the longest of its kind in the world, constructed by the California Wire Works, of San Francisco, under the personal supervision of E. O. Parsons, was completed last month.

YALE.

A rumor, which it is difficult to trace to its source, has been in circulation lately to the effect that a smelter will be erected in the

spring, either at Penticton or Okanagan Landing. It is said that Mr. L. L. Fowler, a well known mining man from Chicago, who is interested in Boundary Creek properties and who spent a few days in Vernon lately, dropped a hint to this effect during his visit. If such should prove to be the case, a fresh impetus will be given to mining throughout the southern country. In event of the new discoveries at Camp Hewitt and Swan Lake turning out as well as it is confidently expected they will, a considerable amount of ore from these sources would find its way to such an institution; and at Camp Fairview, McKinney and the mines further east on Kettle river, a sufficient amount is now in sight to keep a smelter in operation for some time. It is only a matter of time till a movement is made in this direction, and we trust that the next few months will see some such scheme materialize.

Mr. S. D. Ord has struck a mineral claim on the commonage which looks as if it might be developed into as rich rock as has yet been found in the district. He has submitted specimens to Mr. F. H. Latimer for assay, but as yet has received no returns. It is very encouraging to note the activity in prospecting which has sprung up during the past few months, and it is not at all improbable that before any great length of time mines will be operated in the near vicinity of this city fully equal to anything in the far-famed Kootenay districts.

The Swan Lake Mining Company recently received an offer from an English syndicate upon very fair terms, which it is expected they will accept. The syndicate have offered to work the company's mines for a term of one year, and if satisfactory they will purchase them at a price proportionate to the quality of the ore, and if arrangements cannot be made at the end of that time, they will leave development work, machinery, etc., in the hands of the company.

Some time ago Messrs. C. E. Costerton and L. Simmons recorded two mineral claims near the BX ranch, about four miles from Vernon, which were given the names of White Elephant and Bon Diable. The rock looks well, but everyone was astonished at the splendid assay recently received from the Bon Diable, which gave a return of \$219.60 in gold and \$2.80 in silver.

A good deal of prospecting has recently been done near the head of the lake, and Mr. George Stump brought in some fine looking rock for assay this week, which apparently is rich in copper, and from all appearances ought to carry gold.

Mr. John McDonald, a Kootenay prospector who has been working in this district for some time, has some fine specimens of gold-bearing quartz from a claim recently located by him on the west side of the lake.

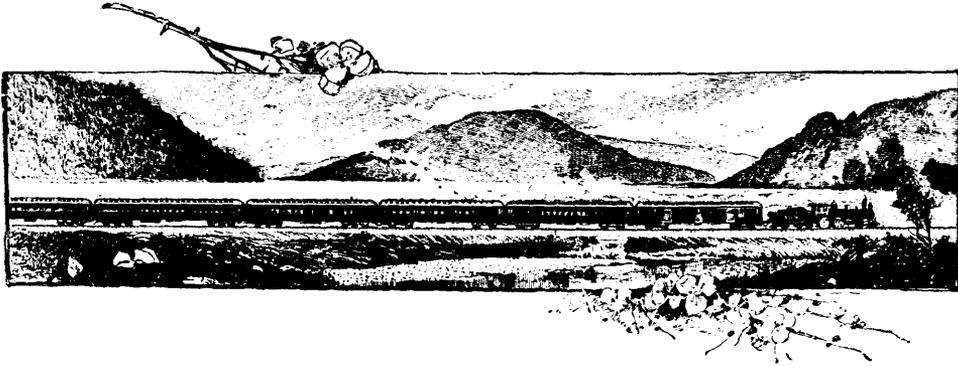
Messrs. Webster, Dennison and McMillen are working on their claims on Deep Creek, in Camp Hewitt, and from one of them, the Little Duncan, a most encouraging assay of about 100 ounces in silver to the ton has been recently obtained.

Since the big assay of \$219 in gold was announced as having been obtained from the Bon Diable claim, a number of prospectors have been steadily at work back of the BX ranch, and several claims have been located in that vicinity. Messrs. Costerton and Simmons, the lucky owners of this claim, which promises to be one of the richest in the district, have sent a shipment of their rock to W. Pellew Harvey, of Vancouver, in order to have it treated by the cyanide process and thus ascertain exactly what it contains.

Messrs. Hewitt and Brott have succeeded in getting some of the business men of Vernon interested in their mining claims at Camp Hewitt, and have left to commence work on the King Solomon and Meadow Lark. They will expend \$2,000 on these claims, and will drive in about 200 feet of tunnels. Things are rapidly shaping towards an active winter in this camp.

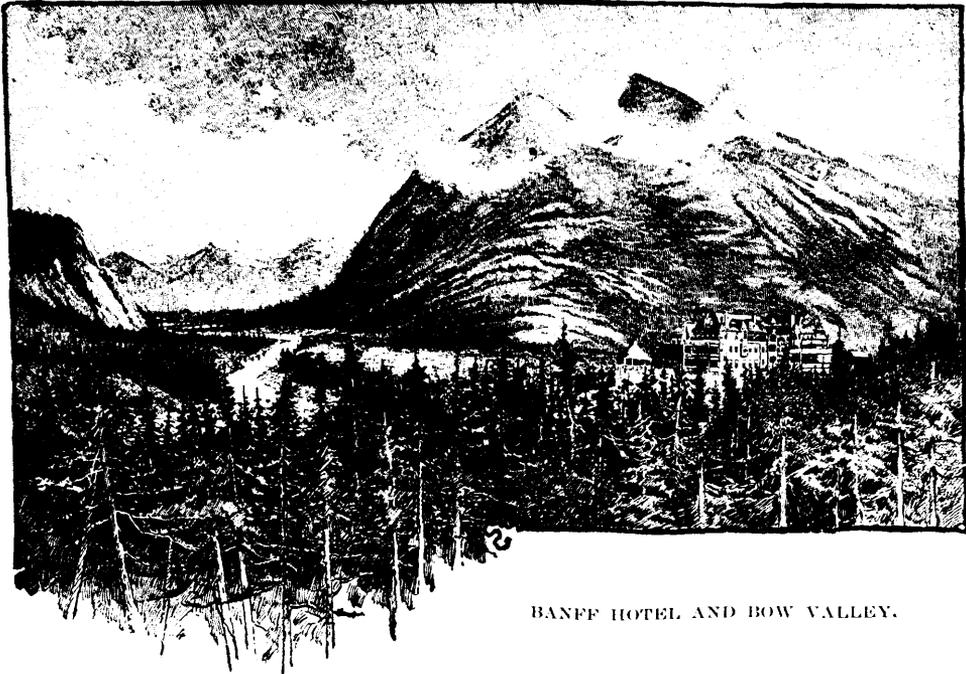
The Swan Lake Mining Company have completed preliminary work on their claim at Vernon, and have now a shaft down some fifty feet. The character of the rock, which is a low grade free milling gold quartz, remaining unchanged until the last few feet, when it assumed a somewhat different appearance.

The Canadian National Highway.



CANADA can boast of the longest continuous line of railway in the world—the Canadian Pacific, whose rails, stretching from ocean to ocean—traversing the entire breadth of the continent—form the connecting link between the Provinces of the Dominion and the great highway for the traffic of three continents. Its undertaking by a young nation, with a population of less than four millions, was a herculean task, a work of such colossal magnitude that the world was startled by the very boldness of the scheme, and stood wondering and amazed at its accomplishment. Fifty millions of people in the great Republic to the south had severely taxed themselves to construct a railway from the Missouri to the Pacific ocean—less than half the distance; and for a mere handful of Canadians to attempt to span the whole continent through an unexplored region was such a gigantic undertaking that the feeling of incredulity its inception engendered could only be fully expelled by the actual completion of the work. The very magnitude of the enterprise; the appalling engineering difficulties to be overcome; the lack of knowledge of the country traversed—all combined to make it a task of such vast proportions that the richest Old World empires might have hesitated even to enter upon the preliminary stages, but, with boundless faith in its resources and in its yet untried strength, Canada never faltered for a moment in the prosecution of the great national work. First assumed by the

Federal Government in 1881, its construction was given over to a syndicate of capitalists, and ten years were allowed for its completion. In one-half the contract time the last rail was laid, and the last spike driven in the fastnesses of Eagle Pass. The grand dream of Canadian statesmen became an accomplished fact, and Canada rose from an inconsequential colony to the dignity of a nation. The marvellously rapid construction of the road was one of the greatest achievements of the age; the thoroughness and stability of the work made it the peer of any line on the continent. Its success as a commercial undertaking has been marked; but it is as an active agency in the development of the resources of the country that its record has been most phenomenal.



BANFF HOTEL AND BOW VALLEY.

Fifteen years ago, the wide stretch of plain which commences at the foothills of the Rockies and reaches to the banks of the Red River of the north was "the Great Lone Land." To-day, the broad wheat fields of Manitoba and Assiniboia, and the vast pastures and agricultural lands of Alberta, dotted with towns, villages, and farms which afford many pleasing glimpses of the busy and prosperous

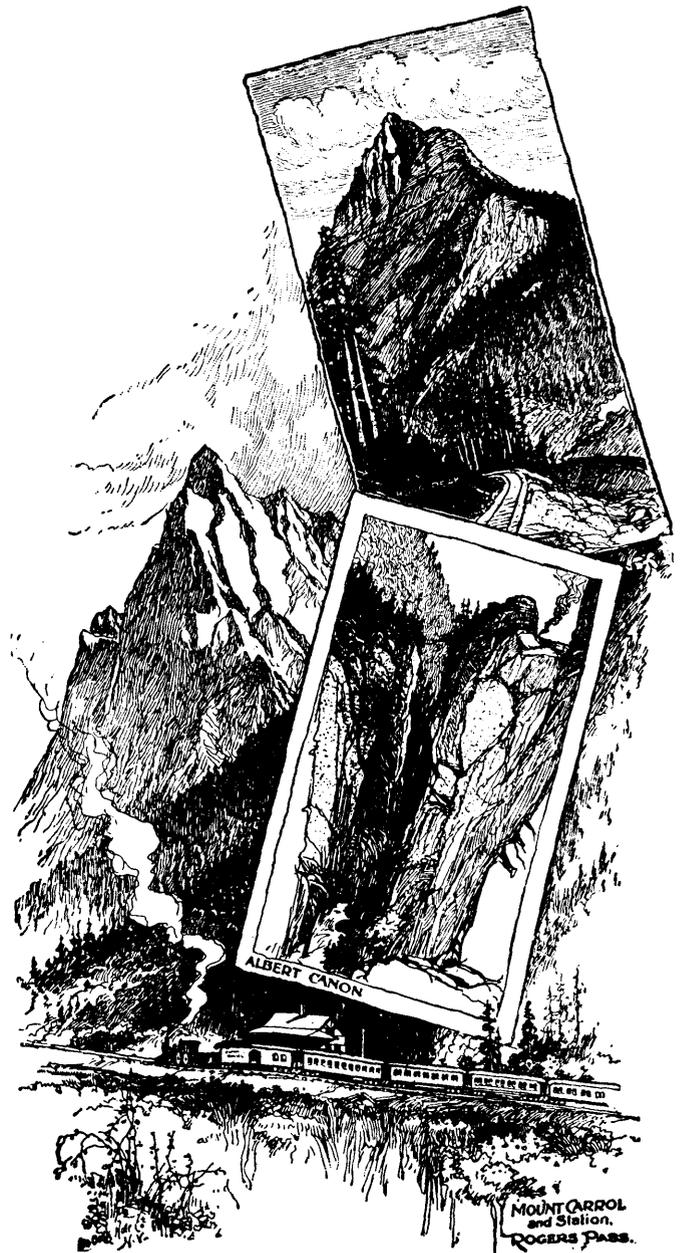
life of settlers in this new land, vividly attest the development process of this important factor in Canadian progress and advancement. The haunts of the nomadic red man have been converted into busy hives of industry; on the stamping ground of the buffalo, countless herds and flocks, destined for eastern markets, are fattening



companies, completely equipped with costly plant, have constructed miles of ditching to convey water to the rich gold deposits, and are actively prosecuting work on their claims with the most satisfactory results. With the construction of a branch line from some point on the C.P.R., which is not improbable in the near future, the work of development will increase and expand, and the golden harvest which was reaped in the early '60s will be over-shadowed by the immense volume of wealth that will reward the pioneers of this later mining era.

Down the Okanagan Valley, the C.P.R. reaches fifty-one miles, connecting the main line of the road at Sicamous with Okanagan Lake, on which waters the company has placed a fine steamer, which plies to Kelowna and Penticton, giving a very satisfactory service to this fertile valley, whose wealth is now found in its mines as well as in its fields and pastures and orchards.

But it is in the Kootenay country that the stimulating effects of augmented transportation facilities which the C. P. R. is now giving are more widely and advantageously felt. This resourceful region, a few years ago, was accessible only with considerable difficulty, and although the almost fabulous richness of its ores permitted shipment to distant smelter points at heavy cost, the full development of its great mineral wealth would be



on the illimitable sea of nutritious grasses; vast tracts of untenanted lands are made accessible for settlement, and a huge granary for the world created. The advent of the C.P.R. with its developing policy and methods, transformed the Great Lone Land of the past into the Great Home Land of the present.

Nor has this magnetic influence been confined to the prairies of the Canadian Northwest. In British Columbia, the magic touch of this young northern giant has been beneficially felt, but the obstacles in the way of speedy development were not so easy to overcome as they were on the great plains. And yet with the coming of the C.P.R. new life and vigor have been infused into the industries of the province, and a wonderful development in its boundless mineral wealth already made. The construction of the great transcontinental line made the rich gold fields of Cariboo more easily accessible, and the introduction of improved heavy mining plant possible. Hitherto, the millions extracted from these far-off fields entailed severe hardship and suffering upon the miner by whom only the crudest and most primitive appliances could be employed in his search for gold. To-day, several wealthy

scarcely possible without better, cheaper and less interrupted means of transporting the products of the mines. The construction of the Arrow Lake branch from Revelstoke to the head of Upper Arrow Lake was—in overcoming the difficulties of river navigation—one forward step in giving continuous communication with the outer world all the year round. From Arrow Head, the southern terminus of the branch, a magnificent steamer service is provided to different points on the lake or Columbia River, from which the company has constructed other branch lines leading directly to the very heart of the principal mining centres. From Nakusp one branch has been built to Sandon, in the Slocan country, past Three Forks and New Denver, the capital of the district, and by this route the output of the chief mining camps of this wonderfully rich silver region can find its way to its destination. Further south, where the turbulent Kootenay pours its swift-running waters into the Columbia, a line runs along its picturesque banks twenty-eight miles from Robson to Nelson, the centre of another group of prosperous and rapidly developing mines, from which point close connection is established with steamers to the great mining camps of Kootenay Lake.



MOUNT STEPHEN.

These means of communication meet present requirements of these districts, but the marvellous developments of the mines, and the discovery of new ones, with the attendant formation of prosperous towns, will doubtless lead to the extension of the railway system to those new centres of wealth. In the ordinary course of events it can be but a short time ere Rossland, the infant prodigy of the Trail Creek district, will welcome the arrival of the iron horse; and the construction of the line through the Crow's Nest Pass, of which exploratory surveys have already been made, will largely aid in the development of this great mineral belt, by supplying cheap coke from not distant coal mines, and cheap food from the prairies of the Northwest.

These are not works of a day, but great enterprise, untiring energy, indomitable perseverance, and above all unwavering faith in the future of Kootenay which characterize the men who direct the affairs of the company, lead to the gratifying conclusion that the developing policy of the C. P. R., so auspiciously begun, will be continued until the whistle of the locomotive will become as familiar in the rocky mountain defiles of Kootenay, as it is in the centres of commerce along the whole line from Atlantic to Pacific tide-water.



DINING ROOM "MOUNT STEPHEN HOUSE," FIELD, B.C.

Alberni and Vicinity.

A GLANCE AT THE NEW ISLAND GOLD FIELDS. BY J. F. BLEDSOE.

Recent rich and extensive discoveries have brought the region lying along the Alberni canal, Vancouver Island, so prominently before the public, that an attempt at the strictly original would scarcely fill even the limited space at my command. An endeavor will be made rather to furnish a series of "concentrates" combined with such additions and corrections as may be drawn from the field notes of a six months' active campaign in the rugged ranges of this section.

A glance at the map of Vancouver Island will show Barclay Sound and the Alberni canal indenting the western coast line midway between the northern and southern extremities, and running inland more than half-way across the island. At the head of this long, narrow reach of water is located the Alberni settlement, from which, as a supply centre, radiate the various roads and trails to the numerous camps within a distance of from fifteen to twenty miles.

Best known, because the ablest of these is China Creek, so called from the fact that years ago, large amounts of placer gold was taken off the rim-rock by Chinamen. Since that time, the creek has been explored very thoroughly by white men, and as a result, is located practically from one end to the other, for hydraulic purposes.

Before proceeding to a specific mention of the claims in this section, a glance at the formation may be of interest. The past season's prospecting has demonstrated, beyond a doubt, that this region is traversed by a broad mineralized belt, running nearly north and south. This belt has been traced for thirty or forty miles in length, and is several miles wide.

The general characteristics of vein matter and country rock are much the same, consisting of dioritic and feldspathic country rock, schistose, and often crystalline. Interbedded in these are slates, limestone and quartzite, and underlying the whole is a floor of syenite. Strong veins of quartz are of frequent occurrence, and in almost every instance, these leads respond to the assay test, with a certain amount of the precious metals. So much for formation, now for a glance at the claims, both mineral and hydraulic.

Beginning at the mouth of China Creek we find in the order named the following hydraulic leases: "Prince of Wales," "Patl-Patlicant," "Balley Hooley," "Cataract," "Duke of York," "Constance," "Lulu," and "Alberni Syndicate." On three of these, the "Cataract," "Duke of York," and "Con-

stance" leases, active operations are now in progress, and will probably continue all winter. At the Cataract a sawmill has just been put into place, and is now getting out the lumber required for a mile or more of flume which is to be built at once. On the other two gangs of men are engaged in hurrying matters forward toward that much to be desired end, a "clean up." All these claims are of demonstrated value, and a pan of dirt without "colors" is the exception. Those who know these claims best are confident that they will do a full share towards maintaining the reputation of the country once a head of water is turned on. The principal mineral claims in this section are located on Mineral Creek, a tributary of China Creek. Of these claims, so far as can be judged by present developments, the Alberni is the most valuable. On this claim two veins of gold-bearing quartz have been



THROUGH THE TIMBER TO THE MINES.

stripped sufficiently to demonstrate their permanent nature. On the lower lead is a showing of from twenty to thirty inches of fine crystalline quartz containing free gold in small particles in connection with minute bunches of black jack. On the upper lead the vein was somewhat smaller on the surface, but has increased with depth in the cut until it is nearly as large as the lower vein. From this quartz assays running far into the thousands of dollars have been obtained. On the Chicago claim are also two veins of quartz, one of which is undoubtedly a continuation of the Lower Alberni lead.

Above the "Alberni" is the "Missing Link" claim on which was recently discovered rich gold-bearing quartz. This property has passed into the hands of men able and willing to see what is in it, and extensive development work is promised for the near future.

On the Champion claim quartz carrying as high as \$1,400 in free gold has been opened up in a well defined formation. On the Crown Point and Mountain Rose claims promising veins have been uncovered, and good assays secured. In more or less immediate proximity to these, and on Mineral Hill, are the Adelaide, Jack Taylor, Victoria, Warspite, Lost Dollar, Halifax and American Boy claims, all with good indications of mineral, and a number of others more or less problematical.

Due north of Mineral Creek and running north into the Cameron River are the Yellowstone and Huckleberry Creeks, and west of these Bledsoe and Tunwater Creeks, on all of which numerous locations have been made. The formation on this side of Mineral Hill is an argillaceous schist, and all these streams appear to follow the strike of interbedded veins of rock, largely calcareans, and thickly peppered with pyrites. The softer lime has worn down to form creek beds between the harder walls of the country rock.

From two to three miles north of these locations is another extensive showing of a somewhat different character; crossing the Nanaimo road, and about eight miles from Alberni is Comstock Hill, upon which twelve or fourteen claims have been staked quite recently. The formation here shows banded quartzites, probably carboniferous, silicious slates, and red jasper or jaspilite. The Gyaskitas claim has several croppings from eighteen inches to four feet, assaying up to \$10, while on the Comstock and Tittle Tattle claims there is a showing of vein matter from twenty to sixty feet wide, carrying both gold and silver. East of the mountains and on the south shore of Cameron Lake recent discoveries have been made of chalcopryite and bornite, in what appears to be paying quantities, and some development work is now in progress.

This is almost the northern limit of the summer's work, and we can now turn for a glance in the other direction. From time to time favorable specimens have been brought in from Sproat Lake and vicinity, and several locations have been made. Yesterday a veritable stampede for that locality took place, and in a week or two the world will know more of what lies in that direction.

Proceeding down the Alberni Canal at a point nine miles below Alberni begins another series of locations along the Hiwaches River and Granite Creek, one of its tributaries. Along Granite Creek placer gold, in considerable quantities, has been found, but recovery will be very expensive, owing to the great number of boulders in the bed of the stream. Among the leading claims here are the Star of the West, Islander, Nevada, and Double Standard. On the Star of the West five or six feet of good ore has been exposed between well-defined walls. The vein matter is quartz mixed with calcite and thickly studded with pyrites. A mill test of a ton of the rock returned \$10.60 in gold. From six to eight miles further inland another group of claims have been located. These are the Starlight, Texas, Emma, and others. The Starlight carries free gold in fine grains, all through the rock, and is a very promising looking property.

On Copper Island, at the mouth of Alberni canal, several locations have been recently recorded. The Rainbow claim contains a strong lead of chalcopryite, from four to six feet wide. This is

now being rapidly developed, and by next spring, an idea can be gained as to the extent and value of the deposits on the island. Near the Rainbow are the Ecole, Printer and other claims, containing well defined leads. Up the canal, and some twenty miles from Alberni, other discoveries have been made, chief of which is the Midnight claim. Here, from a vein many feet in width, rock has been secured assaying from \$11 to \$15.

Among the very recent locations are several at the head of the canal, and from two to three miles from Alberni. Assays running as high as \$40 have been secured from the ledges in this neighbourhood.

So much as the result of some two years' work by a few prospectors, and with great tracts of lately unexplored country lying all around, it would be indeed difficult to accurately predict what time and capital may yet do for this favored region. Here, the prospector may find miles of favourable formation, as yet untracked by man, and the investors, cheap and promising claims awaiting development. Enough has already been done to warrant the belief, that within the coming year, Alberni will add a respectable sum to the wealth of the province, and take a permanent place among her great mining centres.

British Columbia Coal Mines.

The coal measures on the Pacific Coast grow better apparently as we go north from California, no important or really good coal being reached until we get into British territory. This is proved by analysis, and by the commercial value of the various articles—one-third of the supply in San Francisco being received from the Vancouver Island mines.

The coal mines at present in operation in British Columbia, are as follows:—

THE NEW VANCOUVER COAL COMPANY

at Nanaimo, has the largest producing and best equipped mines on the Island. Apart from that, it has been a most important factor in building up a prosperous community. A large proportion of the citizens of Nanaimo are miners, or those who directly or indirectly exist through this industry. Much of the prosperity is due to a wise and liberal policy on the part of the management of the coal mines. Most of the men own and live in their own houses, on their own lots, and are thus rendered happy and contented, and to a certain extent independent. It may be regarded as a model mining town, which has few parallels in that important respect. The same wise policy has entered into all relations with the miners themselves, and as a consequence, strikes have been averted and mutual goodwill established.

The Nanaimo Colliery includes No. 1 Pit, Esplanade, Nanaimo; Southfield No. 2; Southfield No. 5; No. 1 Northfield Shaft and Protection Island Shaft. Southfield No. 2 is worked by slope, in a seam six to ten feet; Southfield No. 5, shaft seam, five to ten feet; No 1 Esplanade, shaft, seam six to twelve feet; No. 1 Northfield, shaft, seam four feet six inches; Protection Island Shaft, lower seam four feet, upper seam six to eight feet.

The following description of the plant is gleaned from the Government report:—

"Railway to Southfield, six miles, with sidings; railway to No. 1 shaft, one mile with sidings; railway from Northfield mine to wharf at Departure Bay, four and a half miles; rails are of steel, fifty-six pounds per yard, of standard gauge, viz., four feet eight and a half inches; eight hauling and pumping engines; fifteen steam pumps; five locomotives; 339 coal cars (six tons), besides lumber and ballast cars; bunkers to hold 3,700 tons; fitting shops for machinery repairs, with turning lathes, boring, drilling, planing, screw cutting machines, hydraulic press, steam hammer, etc., etc.; diamond boring machine, for exploratory work (bores to 4,000 feet); 150-horse power electric plant, engines, boilers, dynamo; two 30-horse power (eight ton) locomotives; one 15 horse power (four ton) locomotive; hauling and lighting equipment; wharves, 2,000 feet frontage, at which ships of the largest tonnage can load at all stages of the tide.

The Nanaimo mine is a most valuable property, with resources of coal practically inexhaustible. The shaft is 650 feet deep to No. 1 level, which, with its windings, is two miles under Nanaimo harbour. The face of the level is under Protection Island, and last year connection was made with a shaft there at the depth of 670 feet, enabling you to go down on Protection Island and travel two miles under water, and come up to daylight again in Nanaimo. The mine is fitted up with a complete electric plant, for hauling the coal underneath and lighting the mine, and this most recent improvement has proved a success. A large wharf has been built near the south point of Protection Island, 400 feet long, and the largest ships are able to tie up there.

The Southfield mine, Nos. 1 and 2, has produced a large quantity of coal. The coal is hard and good and plenty of it, but, owing to depressed state of the market, has not been worked much recently. The coal in No. 5 pit is good quality, but the seam is irregular in width. The mine is well equipped with all necessary appliances, and promises to be a large producer. The Northfield mine is five miles from Nanaimo. The coal has a thickness of from two to four feet, and the Government Inspector in his report says: "Being hard and of good quality commands the highest price in Victoria and in the California market, and in any other place where it has been introduced."

In addition to the coal got at this mine there has been a large quantity of fire clays extracted and forwarded by rail to the British Columbia Pottery & Terra Cotta Co., whose works are near Victoria, and who manufacture articles equal to any of that class that are to be got from England.

The New Vancouver Coal Co. has done and is doing a good deal of exploratory work, and its management being very popular as well as judicious, its continued success is the wish of all classes. One of the characteristic features of the company's policy is the betterment of the community surrounding the sphere of its operations, and more particularly the condition of its employees. Mr. S. M. Robins, the superintendent, personally has done much towards assisting the progress of the city of Nanaimo and all connected with the industry.

THE WELLINGTON MINES.

The Wellington Collieries are owned by the Messrs. Dunsmuirs, and comprise Nos. 1, 4, 5 and 6 pits. There are four shafts, with slopes, airway and levels and three air shafts. There are five miles of railways, with sidings and branches, six locomotives, 250 coal cars, thirteen stationary engines, nine steam pumps, four wharves for loading vessels and bunkers. No. 1 pit is near Departure Bay. The upper seam, which is worked, is about three feet and of good quality. The shaft is down 300 feet. Close on the top and between the coal and the hard rock there is a bed of fire-clay, five

feet six inches thick; then below the coal they have four feet of soft black dirt, and next comes a solid bed of fire-clay, twenty-eight feet thick, making altogether thirty-three feet of most valuable fire-clay, an article that has been much sought after in this country. The Messrs. Dunsmuir & Sons, although not manufacturing it themselves, have sent a quantity of this fire-clay to the British Columbia Pottery & Terra Cotta Company, some of which have been made into brick for use in Her Majesty's war-ships on this coast, which brick has given great satisfaction, and compares favourably with any that is imported from England.

No. 3 pit has not been worked for two years, but has plenty of coal. No. 4, 1,000 yards east, though now shut down on account of being flooded to extinguish fire, has mined coal extensively. No. 5 pit is the only mine of the Wellington colliery connected with the E. & N. It is also connected by rail with the shipping point at Departure Bay. This also is a very extensive mine, and is working on a large face of coal. No. 6 pit is quite close to No. 4 and connected with No. 5. The coal is hard and of the usual good quality of the Wellington seam, varying from four to eight feet in thickness. No. 2 slope has not been worked for several

years. Alexandria mine belongs to Messrs. Dunsmuir & Sons, and is about one mile south of the Southfield mine of the New Vancouver Coal Co. All these mines are well equipped with the latest labor-saving machines, and are most economically worked. Owing to the depression of the coal market for several years, they have not been operated as actively as in former years. Strikes have also interfered with their working.



COAL BUNKERS AT NANAIMO.

EAST WELLINGTON MINE.

There are two shafts at East Wellington, Nos. 1 and 2. There are two seams; lower or main seam, two and a half to seven and a half feet thick; upper or small seam, two feet thick; two shafts. There are four and a half miles standard narrow gauge; two locomotives; thirty-one (four and a half ton) coal cars; two hoisting engines; two donkey engines; one fan engine; seven steam pumps; one steam pile-driver; one steam sawmill, capacity 12,000 feet per day. These mines have not been working for some time. The coal is considerably broken and is difficult to mine, but is of good quality and commands a high price.

MUM COLLIERY, COMOX.

This is owned by the Union Colliery Co., of which Mr. James Dunsmuir is president. It consists of No. 1 slope, with airway and levels. There are twelve miles of railway, four feet eight and a half inches gauge; four locomotives; 100 coal cars, twenty-five tons; one diamond drill; three stationary engines; three steam pumps; one steam sawmill; two wharves; one pile-driver. The coal mined here is a good cooking article, and the demand for the

coke is active. It is the intention of the company to build a number of coke ovens. The mines are located near the extensive farming settlement of Comox.

Mr. Dennis Jordan is also developing his coal mine, which is situated upon the southwestern extremity of the Wellington coal basin, and there is every prospect of its being one of the large producers in the province.

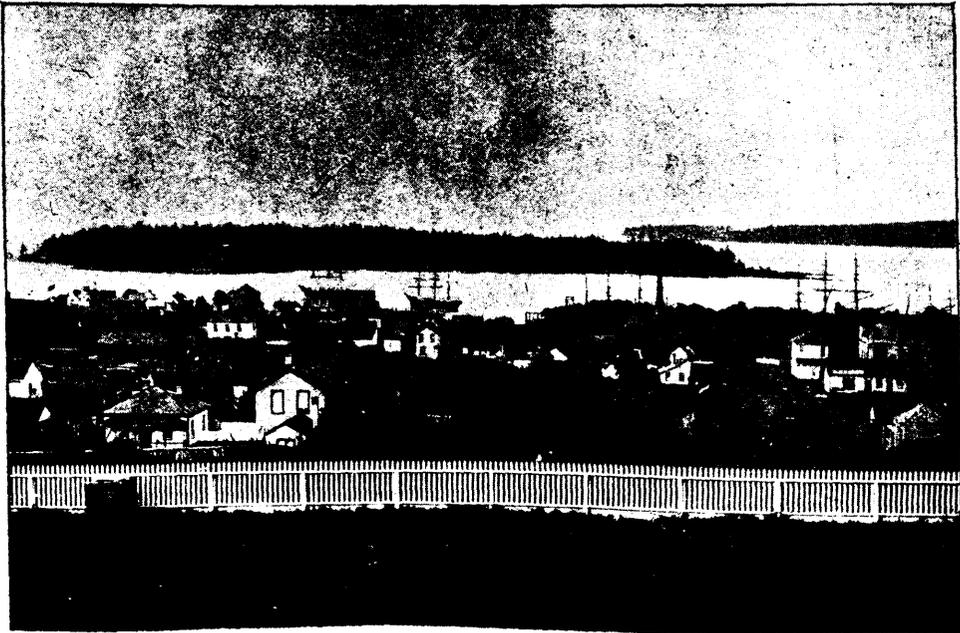
A shaft is being sunk on Jumbo Island, with good prospects of success, a fair seam being discovered by boring. It is now down several hundred feet.

Taking all these together and the undeveloped fields which are largely distributed all over the coast, there are prospects of an illimitable supply of coal on the British Columbia coast for all time to come, which with its proximity with immense quantities of coal must eventually give this province a position in manufacturing similar to that occupied by Great Britain.

A NEW AND PROMISING COAL COMPANY.

During the past month the Gabriola Coal Company has been incorporated under the provincial laws. The company has bonded about 2,000 acres of extremely promising coal lands on the north end of Gabriola Island, which constitutes practically one side of Nanaimo harbour. These lands have long been looked upon as one of the choicest coal propositions in the province, and would doubtless have been secured long ago, had not the owners bound themselves to hold them jointly for coal development, by an outside concern and as an evidence of the high appreciation of this section, it may be mentioned

that the New Vancouver Coal Company bored for coal upon Gabriola Island some years ago, and have since acquired coal rights of over 5,000 acres on the island. The property possesses excellent facilities for shipping coal, and is only about a mile and a half from the present workings of the Vancouver Coal Co.'s Protection Island shaft. The Company includes two thoroughly practical coal men—A. J. Hill, M.A., M. Can. Soc. C.E., who has managed collieries in Nova Scotia, and who is a widely recognized geological authority, and Elijah Priest, C.E., M.E., who has had considerable local experience in British Columbia coal matters, and who thoroughly understands the geological formation in the Nanaimo field, these gentlemen constituting with Marcus Wolfe, of the Nanaimo Board of Trade, W. W. B. McInnes, barrister, of Nanaimo; and A. E. Rand, of New Westminster, the directorate of the company. Arrangements have been made for thoroughly prospecting the property, and boring with a diamond drill by experienced operators, is now being done. It is to be hoped that the company will meet with complete success in their undertaking.



NANAIMO HARBOUR AND PROTECTION ISLAND.

NORTH SAANICH COAL COMPANY, LIMITED.

This Company has been incorporated under the Companies' Act of 1890, for the purpose of prospecting for coal on the northern extremity of the Saanich peninsula, where several well defined coal seams have been known to exist for some years. Quoting from the report of George M. Dawson, Assoc. R.S.M., F.G.S., made to the Dominion Government in 1871-2:

"The coal measures are described as vesting in a 'narrow trough, which may be said to extend to the vicinity of Cape Mudge, on the north-west, and to approach to within fifteen miles of Victoria, on the south-east, with a length of about 130 miles.' The surface of the country is generally rolling, with no elevations rising to a greater height than 800 feet, and in some places comparatively level. The rocks accompanying the coals are sandstones, conglomerates and shales."

About 2,000 acres of coal land has been bonded by the company, with all the facilities for sites, wharfs and roads.

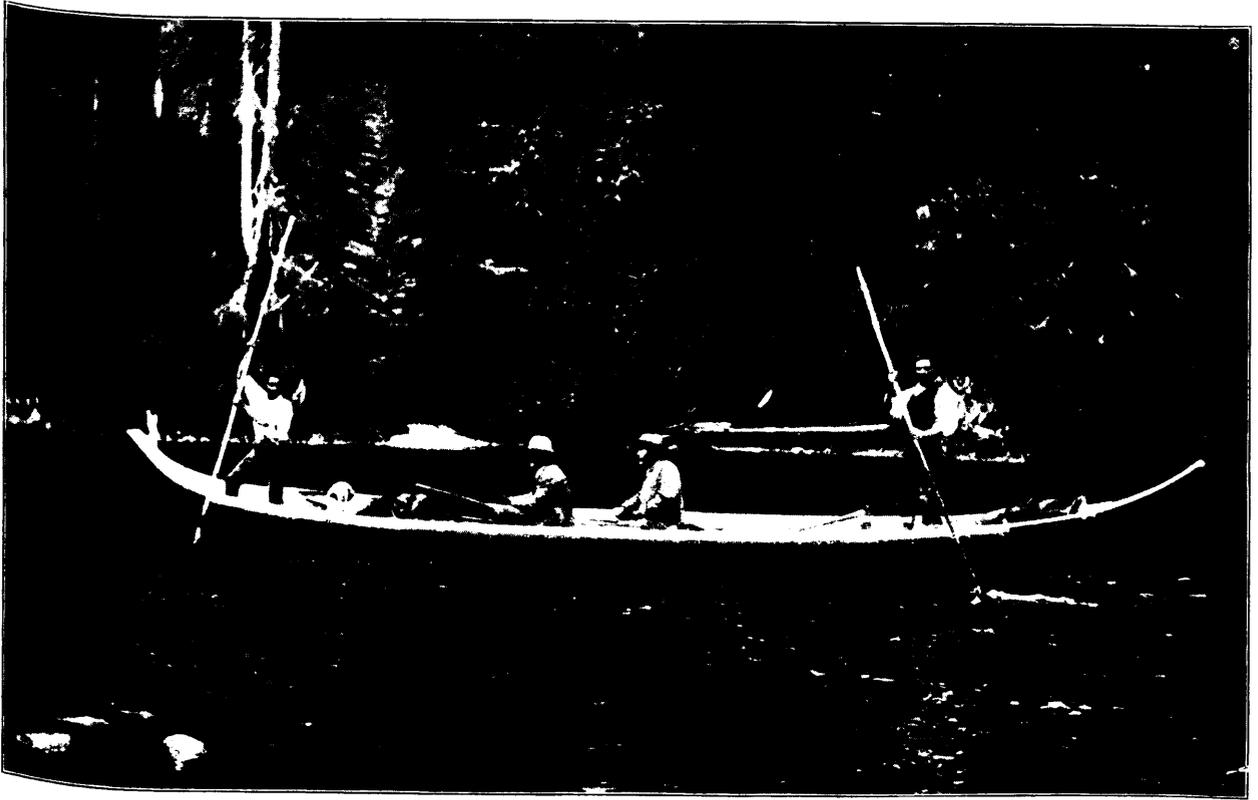
The property is within three miles of the terminus of the Sidney railway, being only some twenty miles from Victoria.

It is proposed to sink a series of bores at an early date on the most promising portion of the property.

The Provisional Directors of the Company are Messrs. E. B. Morrow, Thos. W. Paterson and Wm. Templeman, while Mr. Beaumont Boggs acts as secretary.—(See prospectus of company in advertising columns.)

A Mining Deal.

A meeting of the shareholders in the Maud Hydraulic Mining Company, Limited, was held at the company's office in Vancouver, last month to consider a proposition for the sale of the company's property. Among those present were Messrs. C. Wilson, J. M. Browning, R. Casament, H. Abbott, A. C. Bald, G. Mahon, J. M. McFarland, R. Harvey, W. F. Stein, J. M. Buxton, C. T. Dunbar, C. Loewen, J. Rayner, E. Kealy, and D. D. Duhig. The proposition for purchase was from Judge C. F. Fishback, of Seattle, the purchase price being a certain sum in cash and 10 per cent. in stock of a company to be organized, the capitalization of which is, however, not to exceed \$500,000. The Lillooet, Fraser River and Cariboo Gold Fields, Limited, had also made an offer to purchase on the basis of receiving so much stock, finding funds to work and operate and pay the original shareholders for their expenditure, should the mining result in a profit. After some discussion, the offer from Mr. Fishback was accepted by a large majority, and the directors were empowered to carry out the arrangement.



VANCOUVER ISLAND—ON THE NIMKISH RIVER.



THE MOUTH OF THE FRASER RIVER—SALMON FISHING.



CARIBOO DISTRICT—UNSURVEYED LANDS IN THE BUCKLEY R. VALLEY.

The claims are situated on Four Mile Creek at Quesnelle Forks, and it is stated that the prospecting and development work which has been done, has demonstrated the rich character of the gravel. It may, therefore, be anticipated, that the new proprietors will reap satisfactory returns. At the same time the original owners are to be congratulated on the transaction, since, if the arrangement is completed, they will receive about \$1.80 for every dollar invested, and stock in the new company equal to about \$2.10 besides.

Smelting British Columbia Ores in England.

One of the leading English ore importers and smelters has recently been represented in this province in the person of the principal, Mr. A. Hornby Lewis. Mr. Lewis was much impressed with the possibilities of ore production in the province, and is inclined to think that some at least of the smelting of such product will be conducted by the home smelters and the balance will eventually be handled by British houses. Arrangements have already been made whereby several carloads of silver ore, base bullion and copper matte will be treated as an experiment by this firm in Liverpool, and should the result be satisfactory many important contracts will be signed. The preliminary valuation of the ore will be made in Vancouver by the firm's representative, Mr. W. Pellew-Harvey, F.C.S., and a considerable cash advance against such consignments given. Negotiations are in hand for the purchase of the Revelstoke smelter, to be used as a matting plant by an English smelting company.

Recently the representative of the great gold and platinum refiners of London, Messrs. Johnston, Matthey & Co., has been in the province making inquiries regarding the purchase of these metals for refining purposes in London. It is more than likely that in 1896, the market for these metals will be London instead of San Francisco. Spot cash will be paid for gold and platinum as soon as the fineness of the bullion has been ascertained.

Commendable Enterprise.

The Revelstoke Board of Trade, with commendable enterprise, is organizing a permanent exhibit of mineral in that town, and the example set should be followed by other places wherever practicable. Here is what the *Kootenay Mail* has to say about it:

The Board of Trade is making an effort to fill a "long felt want" by organizing a permanent exhibit of specimens from the various mines of West Kootenay. It is a matter for surprise that an effort in this direction has not been made ere this, as the lack of such an exhibition at this, the principal point in West Kootenay on the main line of the C.P.R., has been noticed and commented upon for years-past by travelers over this route. However, it is never too late to make a start and the Board's present move is in the right direction. Such an

exhibition will likely be productive of much good in arresting the attention of travellers and the amount of advertising the country will thereby receive will not be inconsiderable. The railway authorities are seconding the Board's efforts in this particular and have offered a first-class site for the cabinets in the vicinity of the railway station. They already have the nucleus of an exhibition, but in order to make it as complete as possible, the secretary is asking mine owners and others who can furnish him with specimens of their properties accompanied by a few particulars as to location, assays, etc. The receipt of specimens will be duly acknowledged by addressing them to C. E. Shaw, Secretary Board of Trade, Revelstoke, B. C.

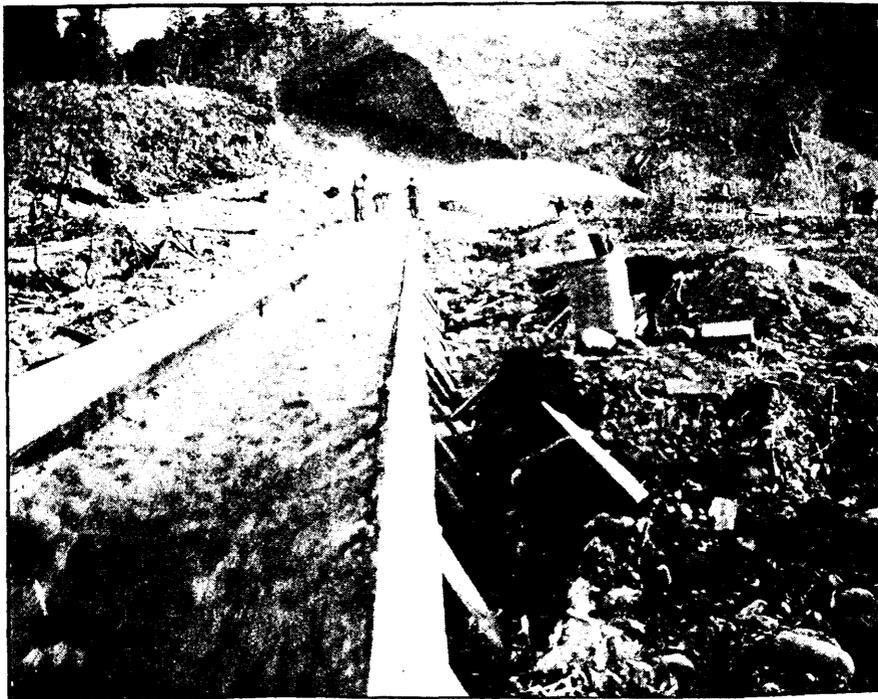
A Progressive Town.

As an instance of the rapid progress being made in the mining regions of British Columbia we quote from the *Rossland Record*. A few months ago Rossland had about 300 inhabitants, and this is what the *Record* has to say about the improvements now going on at that rising place:

Those people who have been saying that Rossland would be dull this winter are evidently croakers, for there are already three large enterprises that will be established this fall, and by the time these are finished there will undoubtedly be others under way. The new enterprises upon which work will commence at once are

the water system, the electric light plant, and the tramway between Rossland and Trail. The construction of these will give employment to a large number of men, and their wages will add materially to the large payroll of this city.

The survey for the narrow gauge tramway has already been completed, and work will begin in earnest the first of next week. F. P. Gutelliws, of Butte, a prominent engineer, has arrived in the city and will have charge of the work. Contractor Larson is also here, and it is understood that he will make a bid for the construction work. The road will be pushed to completion as soon as possible, as it is hoped to have it in readiness to haul ore



SLUICE BOX—ANGLO AMERICAN.

by the time the smelter at Trail is completed.

The Rossland Light and Water Company have opened offices on Columbia Avenue, just east of the post-office. Mr. Norman, one of the chief promoters of the new company, has returned to Spokane, but before he left he assured the *Record* that work on the water system would commence at office. It is the intention of the company to bring the water from Stoney Creek, a distance of about three miles and the plant will furnish a supply of 600,000 gallons daily. Wendall Hall, the well known civil engineer, has charge of the surveying work.

The Rossland Electric Light and Power Company already has its wires strung and are now busy putting in the plant. Indications are that the city will be lighted by electricity on Thanksgiving day. It may be added that Rossland now boasts of having a population of about 3,000.

Ore Shipments.

SINCE JUNE, 1895

	TONS.
Nelson.....	241½
Ainsworth.....	1,124
Trail Creek (gold ore).....	13,422½
Slocan via Nakusp.....	1,551
Slocan via Kaslo.....	467½
Blue Bell to Pilot Bay.....	17,701
Total.....	34,506½

Mission City.

Word comes from the Stave River strike, which is but a short distance from the town, that the vein is turning out very promising. Several men are engaged in making a cross-cut from the bend near the falls, to strike the vein in that direction.

The Fernell claim in the same locality, has very promising outlooks.

Parties just in report a rich strike further up the Stave Lake, but the snow will stop further work in this direction until spring.

Parties desirous of obtaining trustworthy information in regard to the mining resources of Vancouver Island, will do well to write to Henry Croft, Victoria. Mr. Croft has not only had much experience as a mining engineer, but he also enjoys facilities for obtaining reliable information which few in British Columbia possess.

An Expert Opinion.

Mr. John Henry Clemes, the eminent London expert, while in the Kootenay made a careful study of the Trail Creek mines.

He saw no less than forty opened mines and prospects, and went about his work in the most careful and painstaking manner. Before his departure from the district three questions were submitted to him bearing on the future development of this camp, and he was asked to write his own replies. This he had the kindness to do, and the questions with answers attached are here-with given: Question No. 1—Are the economic conditions favourable for the mining and development of Trail Creek ores? Answer—In view of the accessibility

of the camp, of the good class of labor obtainable, of the abundance of water and timber, I consider the economic conditions highly favourable. Question No. 2—Do you think reduction works for the treatment of ores will be established at or near the mines? Answer—Yes, I think eventually a considerable proportion of the ores will be treated at or in the immediate vicinity of the mines. Question No. 3—Are you favourably impressed with the good features of the camp. Answer—Yes.

Cariboo Gold Bricks.

The *B.C. Mining Journal* of Ashcroft, publishes the following interesting letter from Mr. Alex. J. Mouat, which goes to show the great richness of the "Cariboo" district in the old days.

ASHCROFT, B.C., Oct. 25th, 1895.

B.C. Mining Journal: Kindly permit me to call your attention to an error in your issue of this date, relative to the "Horsefly" brick, which was shipped down this week, being, probably, ten times larger than any heretofore made in Cariboo.

I will say that in 1876, a gold bar weighing nearly 400 ounces, and of a value of over \$6,000 and assaying .895 fine, was cast at the Government assay office at Barkerville.

The gold forming this bar, was produced solely by the Victoria mine on Lightning Creek, and was a portion of dividends declared on the interest of the late Thos. Pattullo, in that wonderful gold producer.

This bar was subsequently shown by the owner at the Centennial Exposition, as an exhibit from the province.

Though small in comparison with other bars shown by Montana and Idaho, it attracted considerable attention.

Had a mould of greater capacity been available, no difficulty would have been experienced in securing material for a far heavier bar, as the Victoria was at that period turning out over 1,000 ounces per week.

I remain, yours truly,

ALEX. J. MOUAT.

Dominion Developing and Mining Co.

The Dominion Developing and Mining Co., Limited Liability, whose advertisement appears elsewhere in this issue, has been incorporated with the view of bringing before the Canadian and British public choice mining properties which have been developed sufficiently to prove their worth. At the present time the American capitalists are in possession of over ninety-five per cent. of the developed properties in the

Kootenay country. The company's object is a laudable one, and should meet with the success it merits, the local reputation of the gentlemen who compose its directorate, is in itself a sufficient guarantee that the business will be carefully looked after and economically conducted. Its charter is a most comprehensive one, and allows of the acquiring by purchase, subscription, exchange, or other lawful means, gold or other mineral claims, or shares, or prospects, or interests in same, and any water rights, lands or property, either real or per-



MONITOR—ANGLO AMERICAN.

sonal, that it may be found necessary to acquire for operating them, from other companies, or individual prospectors throughout the province of British Columbia, but more particularly in the districts of East and West Kootenay, and Cariboo. It is also their intention to assist in promoting and aiding in the development of gold and other suitable mining propositions, which have already been inaugurated, and to either re-sell properties so secured, or form other companies to assume such concessions. The company's field of operation is practically unlimited, and the stock which they are now placing upon the market should prove a sound and paying investment.

Our Christmas Number.

The excellent typographical appearance of this our Christmas number is most creditable to the printing department of The Province Publishing Co., where the work was wholly executed. The superior facilities possessed by the establishment itself, and the skill and care of the employes engaged, have enabled us to issue the *MINING RECORD* in its present attractive holiday dress. While the *MINING RECORD* does not agree with the *Province* newspaper on many points, it is but fair to tender this acknowledgment to The Province Printing Company.

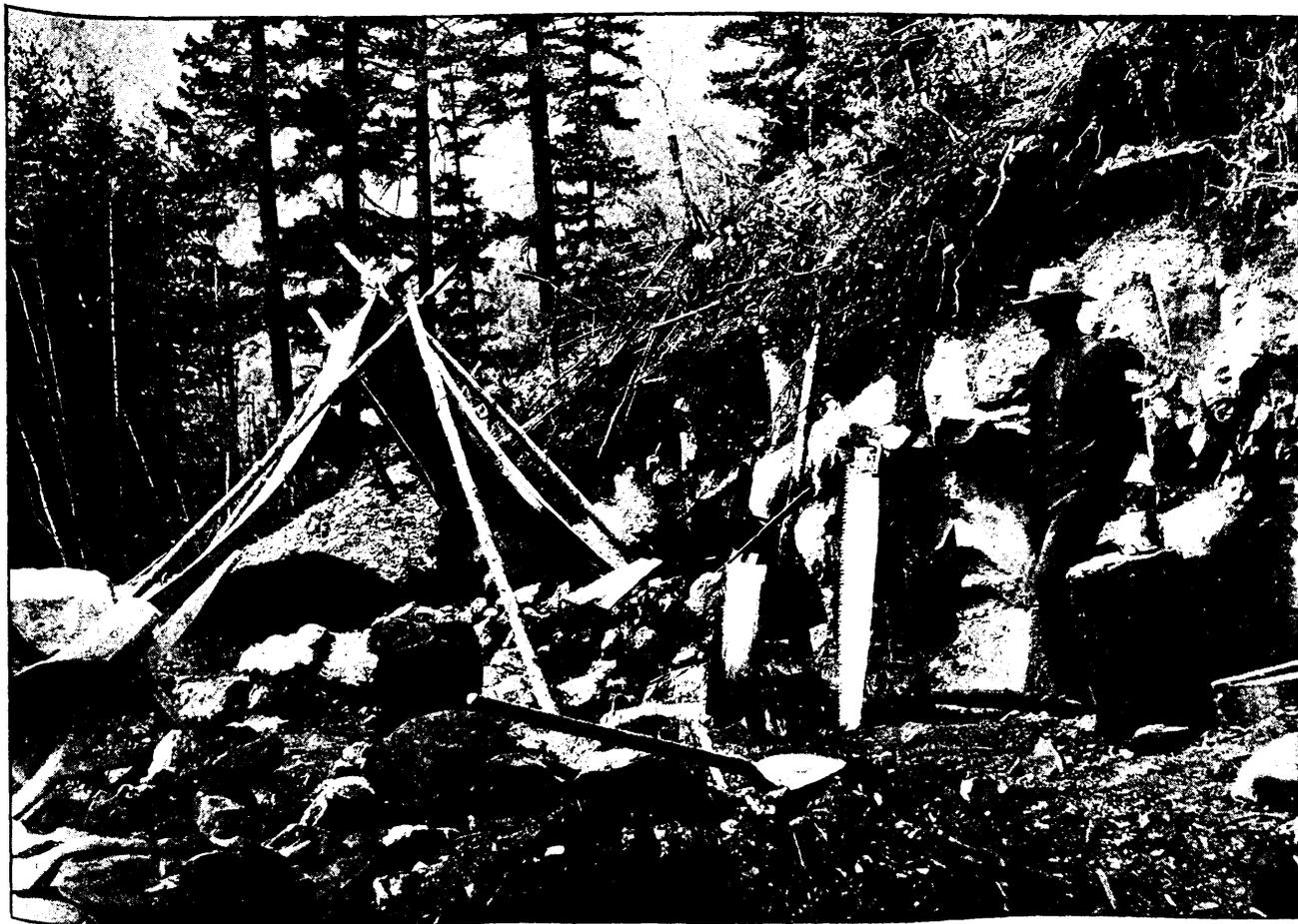
Lardeau and Trout Lake.

This promising district of West Kootenay is situated about forty miles southeast of Revelstoke, on the arm of Upper Arrow Lake, and between it and Upper Kootenay Lake. It is reached from Revelstoke by the steamer *Marion*, which makes a semi-weekly trip.

Owing to the drop in the value of silver shortly after the first discoveries were made, development work received a serious set-back. The miners, however, stuck to their claims, working slowly but steadily, showing up sufficient mineral to draw the attention of outside capital. This resulted in several sales; work was prosecuted vigorously on numerous properties, which showed in almost every case large bodies of ores, and some of exceptionally high grade. The general character of the ore discovered carried grey copper, bromide of silver, and in many cases gold.

stone, Horne and Haskins groups and others. With better transportation facilities, and the erection of smelters at Lardeau City, of which there is some talk, all these groups will with very few exceptions prove producers.

The Government has already surveyed, and are about to construct, a wagon road from Lardeau City to navigation on Fish River, a distance of four and a half miles. Fish River, being navigable for sixteen miles, will, with the road, open up the country, greatly reduce the cost of transportation, and give the Lardeau district a trade outlet unsurpassed in West Kootenay. The completion of the C. P. R. branch line from Revelstoke to Arrow Head, on the head of the Upper Arrow Lake, will still further add to the advantages of this route, and it is most confidently expected that next season will see most important improvements and developments introduced into Lardeau and Trout Lake, which form two of the most important sections in West Kootenay.



FIRST WORK ON A MINE.

The principal claims are the Black Prince, purchased by Moore and Humphries; the Wagner group, owned by Wagner and Kennedy; the Silver Cup, C. P. R. group, owned by H. Abbott and others; the Glengarry, Dunegan, Bad Shot and Scott groups on Sable Creek; and all have been sufficiently developed to prove them good paying properties. On the Scott group two companies—the Kootenay Gold, Silver & Copper and Kootenay Consolidated—are at work. Though they but started work late this fall, the former reports twenty-five feet of good ore in sight, of a nature to keep a mill of fifty tons daily capacity running steadily. This ledge is indeed one of the strongest in the district, there being no less than nine locations on it, and it shows well in copper, gold and silver.

There are numerous other groups of a somewhat lower grade than those mentioned, scattered through the district, but all show tremendous bodies of ore. Chief amongst these are the Great Northern (recently bonded) Gladstone, Pool, Living-

Lectures on Mining.

The Provincial Minister of Mines, the Hon. James Baker, authorizes the B. C. MINING RECORD to state that he is making arrangements for a course of lectures on subjects connected with mining to be delivered in Vancouver during the present winter. Professor Carlyle, who has been appointed Provincial Mineralogist, will arrive in the province in about three weeks. There will be a lecture delivered each week, the following being an outline of the proposed programme:

Professor Carlyle will deliver the first lecture, and the particular branch of the subjects with which he will deal will be practical mining and cognate matters. The second week Mr. Carmichael, the Provincial Analyst, will give the first of a series of lectures on chemistry; while in the third week Mr. W. Pellew Harvey, of Vancouver, will give the first lecture of a series on metallurgy. The fourth week Mr. Carlyle will give his second lecture, and the course will be continued throughout the winter.

Arrangements will probably be made by the Minister of Mines for the establishment of a laboratory in Vancouver, so that those attending the course will have the opportunity of making practical experiments for themselves, while it will be the Department's aim to enable classes to be formed somewhat on the lines of those at South Kensington, London.

The charge for the whole course will not exceed \$10, but tickets will be also issued for single lectures. Further details will be published when the arrangements are more advanced.

Lectures will also be delivered in Victoria by Professor Carlyle on mining and metallurgy, and Mr. Carmichael will lecture on chemistry. These lectures will be delivered during January and February.

The Great Cariboo Mine.

It is almost impossible to adequately describe the great mine on the South Fork Quesnelle River, familiarly known as the "Cariboo." It is great in every sense of the word. A big bank of gravel, about two miles long on the river side, a canal eighteen miles long and wide enough and deep enough to admit a small propeller, discharging its flood of water through two huge nine-inch nozzles, capable of pouring forth about 3,000 inches of water continuously. Some piping was laid last year, and for a few hours a day in the beginning of the summer, but the mine was not really in operation till the water was turned into the big ditch, which took place on August 19th, and six days afterwards it reached the mine. It was nearly two weeks, however, before the mine was in full operation, and in twenty-nine days, of only fourteen hours each the clean-up turned out the brick of value of \$41,875.65, a run and subsequent production almost, if not quite unprecedented in the annals of hydraulic mining.

While the "Cariboo" is not even yet fully equipped, or rather, in shape to work to full advantage, it may be considered one of the greatest hydraulic mines on the continent for size and richness.

Similkameen Gold Fields.

Mr. F. J. Coulthard, who returned from Similkameen recently, reports the Anglo-American mines in splendid shape for work. This claim has a head of 306 feet of water, and hydraulic is in full swing, opening up the face of the claim. This company may have a clean-up yet, but it will depend upon the season. The seven-inch monitors are being worked, and a great quantity of dirt is being washed daily.

Adjoining the Anglo-American is the "John Bull" claim, which is also hydraulic, and the indications are very promising, although they have not had a clean-up. The Anglo-Canadian, close at hand, is also a promising venture, the prospects having been sufficiently encouraging to warrant the expenditure of a large sum in developing it.

The Allison Ranch claim, in which Mr. Coulthard is interested, is situated at the junction of the Similkameen and Tul-

ameen rivers, and covers 640 acres of gold bearing benches. Gold is found everywhere, and the returns are so highly satisfactory to the promoters, that they now intend developing the claim at a cost of \$25,000 to \$30,000. Along with this claim are the best water rights and dump in that portion of the country, advantages which are necessary to successful hydraulic mining.

Our Iron Industries.

That British Columbia possesses within her own borders the best of facilities for supplying the mines with machinery may not be generally understood, but it is a fact, nevertheless, that there are several machine works in the province able to fill the largest orders in their line of business, and, at the same time, to compete favorably with outsiders. As an instance of this we may refer to the Albion Iron Works, located in the city of Victoria. They supplied a pair of 30x60 hoisting engines for the Union Collieries and the castings for the Kootenay Mining and Smelting Company at Pilot Bay. They also constructed an 8-inch double action pump with a 6-foot stroke for the McCulloch Creek Mining Co., three ore cars for the Hall Mines Co. at Nelson, and a large quantity of bolts for the California Wire Works at the same place.



OPENING UP THE VEIN.

In marine work, for which they have special facilities, they have lately executed a number of large contracts. Two marine boilers, with three furnaces 13 feet 10 inches in diameter and 10 feet 6 inches in length, were placed by them in the *S.S. Wellington*; an extensive overhauling of the engines in the steamer *Muriel* and yacht *Eleanor* was carried out, and for the *S.S. Mathilda* they cast in one piece (the largest ever attempted in Canada) a propeller 17 feet in diameter.

It was the Albion Iron Works Company who constructed the

beacon for Brotchie Ledge, consisting of $\frac{3}{8}$ steel plates 26 feet in diameter at base and 10 feet at top, and the whole of the iron girders for the Provincial Parliament buildings were supplied by them.

These few instances will give some idea of the capacity of one of the largest iron working establishments in the province, and they show that we have the best of facilities in British Columbia for fitting out miners with the necessary machinery. "Our Iron Industries" will hereafter be a special feature of THE MINING RECORD.

Unavoidably Held Over.

A most interesting article on "The Stamp Mill," written by Mr. G. F. Monckton, received as the last form of THE RECORD was going to press, is unavoidably held over, but will appear in our January number. We regret our inability to publish this article in our Christmas number; our readers, however, may rely upon having a treat in store for them.—EDITOR.

Free gold has been found upon Mr. Phillipps-Wolley's claims upon Chesnucknet Creek. The rock on this creek, which is the next creek to Granite Creek down the canal, gives an assay 80 lbs. of 9 to 10 on the surface. This free gold is the result of practical examination.

Synopsis of British Columbia Mining Laws.

HOW TO LOCATE MINERAL CLAIMS.

Every person over eighteen years of age, and every joint stock company shall be entitled to all the privileges of a free miner, on taking out a free miners' certificate, the cost of which is \$5.00 a year.

Any Gold Commissioner or any Mining Recorder can issue free miners' certificates.

A free miner can locate and hold mineral and placer claims, under the mining laws in force at the time, during the continuance of his certificate, but no longer.

A mineral claim must not exceed 1,500 feet long by 1,500 feet wide, and must be marked by two legal posts, numbered one and two, placed as nearly as possible on the line of the lode or vein, and not more than 1,500 feet apart.

The line from one to two is the location line, and the claim may extend any number of feet to the right and to the left of said location line, provided the total distance on both sides does not exceed 1,500 feet.

A legal post marked "Discovery Post" must also be placed on the lode where it was discovered.

On No. 1 post must be written:

1. "Initial Post."
2. The name of the claim.
3. The name of locator.
4. Date of location.
5. Approximate bearing of No. 2 post.
6. Length and breadth of claim.
7. Number of feet to the right and number of feet to the left of location line.

On No 2 post:

1. Name of claim.
2. Name of locator.
3. Date of location.

The line from one to two must be distinctly marked by blazing trees, cutting underbrush, or planting posts.

RECORDING MINING CLAIMS.

All records must be made at the Mining Recorder's office of the mining division in which the claim is situated.

An affidavit that mineral has been found in place on the claim must be made by the applicant, or someone in his behalf cognizant of the facts, and filed with the Recorder.

A mineral claim must be recorded within fifteen days after location, if within ten miles of the office of the Mining Recorder. One additional day is allowed for every additional ten miles.

The locator must furnish the Mining Recorder with the following particulars, in addition to the affidavit above mentioned, at the time the claim is recorded, paying a fee of \$2.50 for recording claim and 25 cents for filing affidavit:

RECORDING MINING CLAIM.

1. Name of claim.
2. Name of locator.
3. Number of location, Free Miners' Act.
4. Where the mine is situated.
5. Direction or bearing of location line.
6. Length and breadth of claim.
7. Number of feet to the right and number of feet to the left of location line.
8. Date of location.

ANNUAL WORK.

To hold a mineral claim, work to the value of one hundred dollars must be done on the claim each year from date of record.

An affidavit made by the holder, or his agent, giving a detailed statement of the work done must be filed with the Gold Commissioner or Mining Recorder, and a certificate of work obtained from the Gold Commissioner or Mining Recorder, and recorded

(fee \$2.50) before the expiration of each year from the date of record.

The holder of adjoining mineral claims may, subject to filing a notice of his intention with the Gold Commissioner or Mining Recorder, perform on any one or more of such claims all the work required to entitle him to a certificate of work for each claim.

Any money or labor expended in constructing a tunnel to develop a vein or lode will be deemed to have been expended on such vein or lode.

In lieu of the above annual work, the holder of a mineral claim may pay to the Mining Recorder the sum of one hundred dollars, get a receipt and record the same, each year from date of record.

(Placer mining laws and laws in reference to hydraulic gold claims in next issue.)

CERTIFICATE OF IMPROVEMENTS FOR CROWN GRANT.

To obtain a certificate of improvements to a mineral claim the holder must have done work on his claim to the value of \$500; had the claim surveyed and marked out by a provincial land surveyor, whose field notes and plan must be immediately forwarded to the Lands and Works Department; posted notice on claim and in Mining Recorder's office for sixty days; filed copy of surveyor's field notes and plan with Mining Recorder; inserted copy of notice in *British Columbia Gazette* and in some newspaper published in the province and circulated in the district, for sixty days after posting notice on claim; and filed with Mining Recorder affidavit of himself, or his agent, in the required form and to the effect that the above conditions have been complied with.

CROWN GRANTS.

Applications for Crown grants must be made to Gold Commissioner within three months from date of certificate of improvements.

The holder of a certificate of improvements, on making application for Crown grant, must enclose certificate of improvements and the Crown grant fee of \$5.00.

The holder of a certificate of improvements, which has been duly recorded, in respect of a mineral claim outside the railway belt, is entitled to a Crown grant of such claim on payment of Crown grant fee, \$5.00, and making application as above; but in respect of a claim within the railway belt, a further payment of \$5.00 an acre is required. Or: Any lawful holder of a mineral claim can obtain a Crown grant by paying to the Government of British Columbia the sum of \$500 in lieu of expenditure on claim, after having complied with all the provisions relating to certificates of improvements except such as have respect solely to work required to be done on the claim.

TABLE OF FEES FOR REFERENCE.

For every free miners' certificate (for each year).....	\$5 00
Every substituted certificate.....	1 00
Recording any claim.....	2 50
Recording every certificate of work.....	2 50
Recording any "lay over" or every other record required to be in the "Record Book".....	2 50
Recording every abandonment, including the memorandum to be written on the record.....	2 50
For any other record made in the "Record of Abandonments".....	2 50
For recording every affidavit, where the same does not exceed three folios of one hundred words.....	2 50
For every folio over three, thirty cents per folio.	
The above rate shall be charged for all records made in the "Records of Affidavits."	
For all records made in the "Record of Conveyances," where the same does not exceed three folios.....	2 50
For every folio over three, a further charge of thirty cents per folio	
For all copies or extracts from any record in any of the above-named books, where such copy or extracts shall not exceed three folios per copy.....	2 50
Where such copies or extracts exceed three folios, thirty cents per folio for every folio over three.	
For filing any document.....	25
For a Crown grant.....	5 00

MINING CENTRES IN BRITISH COLUMBIA

—AND—

HOW TO REACH THEM.

ALBERNI.

Alberni.—Steamboat communication with Victoria and by stage with Nanaimo.

Barclay Sound.—Forty miles from Alberni; communication by steamer with Victoria.

CARIBOO.

Barkerville.—285 miles from Ashcroft; stage from Ashcroft. See stage lines.

Bonaparte.—Twenty miles from Ashcroft; stage from Ashcroft.

Big Bar.—Stage from Ashcroft.

Clinton.—Thirty-two miles from Ashcroft station; stage from Ashcroft.

Fort George.—Nearest post office, Quesnelle, where stage to and from Ashcroft changes.

Horsefly.—Nearest post office, 150-Mile House; stage from Ashcroft; change at 150-Mile House.

Lac La Hache.—100 miles from Ashcroft; stage from Ashcroft and Barkerville.

Lillooet.—Weekly stage from Clinton, where connection is made with stage for Ashcroft.

Lightning Creek.—Between Quesnelle and Barkerville, by stage.

One Hundred Mile House.—Stage from Ashcroft.

One Hundred and Fifty Mile House.—Stage from Ashcroft.

Quesnelle.—225 miles from Ashcroft; stage from Ashcroft.

Quesnelle Forks.—Stage and pack trail from Ashcroft.

Soda Creek.—Stage from Ashcroft.

Slough Creek.—From Barkerville, 12 miles.

Tatta Lake.—Stage from Ashcroft, changing at Soda Creek.

Willow River.—Stage to Barkerville or Stanley, thence trail.

Williams Creek.—From Barkerville, 7 miles.

CASSIAR.

Dease Creek.—

McDome Creek.—

COAL CENTRES.

Crow's Nest Pass.—

Nanaimo.—From Victoria, all rail, 73 miles. Steamer from Vancouver.

Union.—

Wellington.—From Victoria, all rail, 83 miles. Steamer and rail from Vancouver.

EAST KOOTENAY.

Cranbrook.—Nearest railway station, Golden. Communication by steamer from Golden to Windermere, thence by stage.

Fairmont Springs.—Nearest railway station, Golden. Steamer to Windermere, thence by stage.

Fort Steele.—Steamer and road from Golden. Steamer from Jennings, Montana, G.N.R.R.

Galbraith Ferry.—Steamer from Golden. Stage in winter.

Galena.—Nearest railway station, Golden; thence by steamer. Stage in winter.

Golden.—On the main line C.P.R., 475 miles from Vancouver.

Moyie River.—From Fort Steele, 25 miles.

McMurdo District.—Steamer and trail from Golden, 35 miles.

Perry Creek.—Steamer from Golden to Fort Steele, thence by road.

St. Mary's.—From Fort Steele, 20 miles trail.

Thunder Hill.—115 miles from Golden. Steamer in summer, stage in winter.

Windermere.—Steamer from Golden; stage in winter.

Wild Horse Creek.—From Fort Steele, 2 miles trail to Kootenay river.

WEST KOOTENAY.

Ainsworth.—Twenty-eight miles from Nelson and twelve from Kaslo. Steamer communication.

Albert Canyon.—A station on the C.P.R., 400 miles from Vancouver.

Big Bend District.—Fifty miles from Revelstoke by trail and boat.

Cariboo Creek.—Steamer from Nakusp, 10 miles.

Fort Shepherd.—Nearest post office, Trail Creek; communication by rail and steamer from Revelstoke.

Illecillewaet.—On the main line C.P.R., 407 miles from Vancouver.

Kaslo City.—Thirty-five miles from Nelson; communication by steamer.

Lardeau City.—Forty miles from Revelstoke; communication by steamer.

Lardo-Duncan.—Steamer from Kaslo to head of lake, thence river trail 40 miles.

Nakusp.—North-west terminus of Nakusp & Slocan Railway. Fifty miles from Revelstoke. Steamer communication from Revelstoke tri-weekly.

Nelson.—Thirty miles from Robson; is the eastern terminus of Columbia & Kootenay Railway, and also on the Spokane & Northern Railroad; steamer from Revelstoke.

New Denver.—Steamer from Revelstoke and rail from Nakusp; all rail from Kaslo. Distant from Revelstoke, 78 miles; from Kaslo, 28 miles.

Pilot Bay.—Eighteen miles from Kaslo, thence by steamer. Revelstoke. On main line C.P.R.; 379 miles from Vancouver.

Rosslund.—Seven miles from Trail by road or stage.

Sproat's Landing.—160 miles from Revelstoke, and one and a-half miles from Robson.

Springer Creek and South Slocan Camps.—From New Denver by steamer, 20 miles.

Sandon and Cody Creek.—All rail from Kaslo, 29 miles. Steamer and rail from Revelstoke via Nakusp and Three Forks. Distant from Three Forks, 4½ miles.

St. Mary's Country.—Steamer from Kaslo or Nelson to Davie township, thence trail.

Three Forks.—Steamer from Revelstoke to Nakusp, thence rail; from Kaslo, all rail. Distant from Revelstoke, 82 miles; from Kaslo, 24 miles.

Trail.—Rail from Spokane to Northport, thence steamer. All steamer from Revelstoke, or steamer and rail via Nelson. Distant from Spokane, miles; from Revelstoke, 150 miles; from Nelson, 50 miles.

Trout Lake City.—Steamer and stage from Revelstoke.

LILLOOET.

Bridge River, Caryoosh Creek, Fraser River.

YALE.

Boundary Creek.—Nearest railway station Vernon, B.C. and Marcus, Wash.; stage daily. Distant from Vernon, 90 miles; from Marcus, 65 miles.

Cherry Creek.—From Vernon, 30 miles; good road.

Fairview Camp.—Communication by boat from Penticton and by stage.

Granite Creek.—Stage from Spence's Bridge.

Kamloops.—On main line C.P.R. from Vancouver, miles.

Kettle River.—Communication by stage with Kamloops and Vernon.

Lytton.—156 miles from Vancouver on main line C.P.R.

McKinney Camp.—From Fairview trail, 28 miles.

Midway.—140 miles from Okanagan Landing waggon road, weekly mail.

Nicola Lake.—Stage from Spence's Bridge and Kamloops, twenty-five miles.

North Bend.—On main line C.P.R., 129 miles from Vancouver.

Okanagan.—Rail from Sicamous Station on C.P.R.

Okanagan Mission.—Rail from Sicamous to Vernon, thence by stage.

Osoyoos.—Rail and stage to Okanagan Mission, thence by livery.

Rock Creek.—Rail from Sicamous to Vernon, stage to Mission, and thence by livery.

Spallumcheen.—Sicamous to Enderby, and thence six miles.

Spence's Bridge.—On main line C.P.R., 178 miles from Vancouver.

Vernon.—Rail from Sicamous.

Yale.—On main line C.P.R., 102 miles from Vancouver.

Gold Commissioners.

For the Province—W. S. Gore.

Alberni—Thos. Fletcher, Alberni.

Cariboo—John Bowron, Richfield.

Cassiar District—James Porter, Laketon, Cassiar.

Lillooet District—Frederick Soues, Clinton.

East Kootenay District—J. F. Armstrong, Donald.

West Kootenay District—N. Fitzstubs, Nelson.

West Kootenay District—J. D. Graham, Revelstoke.

Yale District—Chas Lambly, Osoyoos; G. C. Tunstall, Kamloops.

Provincial Government Agencies.

Alberni—Thos. Fletcher, Alberni.
 Cariboo—J. Bowron, Richfield.
 Cowichan—H. O. Wellburn, Duncan.
 Comox—S. Creech, Comox.
 Cassiar—James Porter, P.O. Laketon.
 East Kootenay—J. F. Armstrong, Donald.
 Fort Simpson—J. Flewin.
 Kamloops—G. C. Tunstall, Kamloops.
 Kootenay, West—N. Fitzstubs, Nelson.
 Lillooet—F. Soues, Clinton.
 Nanaimo—M. Bray, Nanaimo.
 New Westminster—C. Warwick, New Westminster.
 Nicola—John Clapperton, Nicola Lake.
 Okanagan—L. Norris, Vernon.
 Quesnelle—Wm. Stephenson, Forks, Quesnelle.
 Revelstoke—J. D. Graham, Revelstoke.
 Yale—W. Dodd, Yale.

Assayers.

Public Assayer—H. Carmichael, Victoria.
 W. Pellew Harvey, Vancouver.
 R. C. Campbell-Johnston, Vancouver.
 Mahon & Twigg, Vancouver.
 G. F. Monckton, Vancouver.
 Albert Strolberg, Ainsworth.
 Ed. A. Martin, Barkerville.
 W. W. Gibbs, Boundary Creek.
 W. V. Bowrow, Richfield, Cariboo.
 Crowells & Wallinger, Fort Steele.
 W. J. Thretheway, Kaslo.
 Harry A. Guess, Midway.
 Wm. F. McCulloch, Nelson.
 Frank Dick, New Denver.
 Howard West, New Denver.
 A. H. Holdich, Revelstoke.
 C. W. Cluett, Rossland.
 Frank J. Davey, Rossland.
 Chas. M. Wilson, Three Forks.
 M. A. Bucke, Sandon.
 F. H. Latimer, Vernon.

Mining Recorders.

DISTRICT.	OFFICE.
Nanaimo—M. Bray	Nanaimo
New Westminster—C. Warwick	New Westminster
East Kootenay—S. Redgrave	Donald
F. C. Lang	Golden
G. Goldie	Windermere
C. Edwards	Fort Steele
West Kootenay—J. D. Graham	Revelstoke
Corry Minnhenick	Lardeau
A. Sproat	New Denver
John Keen	Kaslo
W. J. Goepel	Nelson
J. Kirkup	Rossland
J. C. Ryhert	Ryhert's
T. Taylor	Trout Lake
A. C. McArthur	Illecillewaet
Cariboo—W. Stephenson	Quesnelle
Yale—W. Dodd	Yale
L. Norris	Vernon
C. A. R. Lambly	Osoyoos
W. McMyn	Rock Creek
H. Hunter	Granite Creek
Lillooet—C. A. Phair	Lillooet

British Columbia Mining Companies.

NAME.	Capital authorized.	Capital subscribed.	Capital paid up.	Shares par value.	Shares paid up.
Black Creek Hydraulic Mining Company of Cariboo	\$ 300,000	\$ 300,000	\$ 300,000	5	5
Cariboo Hydraulic Mining Company	300,000	300,000	300,000	5	5
Cariboo and Kootenay Prospecting and Mining Company	100,000	16,000	16,000	2	2
Horseshy Hydraulic Mining Company	200,000	150,000	150,000	10	10
Maud Hydraulic Mining Company	25,000	25,000	22,500	5	4.50
Montreal and British Columbia Prospecting and Promoting Company	20,000	20,000	20,000	5	5
Montreal Hydraulic Gold Mining Company of Cariboo	250,000	150,000	100,000	1	1
Similkameen Gold Gravels Exploration Company	100,000	35,375	35,375	25	25
Van Winkle Consolidated Hydraulic Mining Company	500,000	500,000	500,000	10	10
Dominion Developing & Mining Company	500,000			1	
North Saanich Coal Company	25,000			10	

BRITISH COLUMBIA MINING COMPANIES.—Cont'd.

COMPANIES INCORPORATED.

NAME.	Head Office.	Capital Stock.	No. of Shares.	Price per Share.
Similkameen Gold and Platinum Mining Co.	Vancouver			
Bonanza Mining Co.	Lillooet			
Lillooet Hydraulic Mining Co.	"			
Mina Placer Mining Co.	"			
Scum Scum Mining Co.	"			
Vancouver Enterprise Mining Co.	"			
Victor Hydraulic Mining Co.	"			
Dandy Mining Co.	Nelson			
Kootenay Bonanza Mining Co.	"			
Hall Mines Co.	"			
Rattler Mining Co.	Osoyoos			
Cariboo & Horseshy Mining Co.	"			
Spokane & Great Northern Mining Co.	Boundary Creek			
Great Hopes Mining Co.	"			
Confidence Mining Co.	"			
Botanic Creek Gold Mining Co.	Aancouver			
Cariboo Hydraulic Mining Co.	"			
Laura Hydraulic Co.	Kettle River			
Tulameth Hydraulic & Improvement Co.	New Westminster			
Victoria Hydraulic Mining Co.	"			
Wolf Hill Mines Co.	Aictoria	100,000	100,000	1
Islander Gold Quartz Mining & Milling Co.	"	100,000	100,000	1
Fishback Hydraulic Gold Mining Co.	Seattle, U.S.A.	300,000		
St. Mary Mining Co.	Spokane, U.S.A.			
Caledonia Consolidated Mining Co.	"	500,000	500,000	1
Gabriola Coal Co.	Nanaimo	1,000,000	100,000	10
Delta Mining & Developing Co.	Vancouver	100,000	100,000	1
Dixie Mining & Milling Co.	Spokane	500,000	500,000	1
B. C. Goldfields Exploration & Concessions Co.	Vancouver	500,000	100,000	5
War Eagle Gold Mining Co.	Spokane, U.S.A.	500,000	500,000	1
Slocan Surprise Mining Co.	Chicago, U.S.A.	225,000	2,250	100
Bellingham Bay Hydraulic Mining Co.	Fairhaven, U.S.A.	30,000	600	50
Finch Mining Co.	Pittsburg, U.S.A.	6,000	120	50
Kootenay Gold, Silver and Copper Mining Co.	Vancouver	100,000	4,000	25
Vancouver Gold and Silver Exploration & Concessions Co.	"	500,000	5,000	100
Cariboo Gold Fields Co.	England	500,000	100,000	5
Trail Mining Co.	Chicago, U.S.A.	250,000	2,500	100
Mineral Creek Gold Mining Co.	Nanaimo	500,000	500,000	1
Nanaimo-Rossland Mining Co.	"	500,000	500,000	1
Good Hope Mining & Milling Co.	Spokane, U.S.A.	500,000	500,000	1
Paris Belle Gold Mining Co.	"	800,000	800,000	1
Ottawa Hydraulic Mining & Milling Co.	"			
Kootenay Hydraulic Mining Co.	North Bend	250,000	50,000	5
Cinnibar Mining Co. of B.C.	Rochester, U.S.A.	500,000	500,000	1
Robt. E. Lee Mining Co.	Vancouver	100,000	100,000	1
Alexandra Mining & Dredging Co.	Spokane, U.S.A.	500,000	500,000	1
Cariboo Reefs Development Co.	Vancouver	3,000,000	600,000	5
British American Mining Co.	England	100,000	20,000	5
Le Koi Mining & Smelting Co.	Butte, U.S.A.	500,000	500,000	1
War Eagle Mining Co.	Spokane, U.S.A.	250,000	250,000	1
Enreka Consolidated Mining Co.	"	500,000	500,000	1
Centre Star Mining & Smelting Co.	Butte, U.S.A.	500,000	500,000	1
Idaho Gold Mining & Smelting Co.	"	500,000	500,000	1
Boundary Creek Mining Co.	Spokane, U.S.A.	1,000,000		
Peter's Creek Gold Mining Co. of Cariboo	"	25,000		
Argonaut Gold Mining Co. of Kootenay	Vancouver	500,000		
Poorman Gold Mining Co.	Spokane, U.S.A.	500,000		
Evening Star Mining Co.	"	1,000,000		
Kamloops Mining & Development Co.	Kamloops	30,000	300	100
Byron N. White & Co.	New Denver			
High Ore Gold Mining & Smelting Co.	Spokane, U.S.A.			
Nelson Hydraulic Mining Co.	Nelson			
Swan Lake Mining Co.	Vernon			
Virginia Gold Mining Co.	Spokane, U.S.A.	500,000		fullypd
Silverine Mining Co.	"	500,000		fullypd
Richmond Developing & Mining Co.	Vancouver	120,000		
Dominion Development & Mining Co.	"	500,000		
Alamo Milling Co.	New Denver	100,000	10,000	10
Fraser River Mining & Dredging Co.	Vancouver	500,000	500,000	1
Golden Era Mining Co.	"	2,500,000	250,000	10
Kootenay Mining & Smelting Co.	Jersey City, U.S.A.	8,000	4,000	2
Quesnelle River Hydraulic Gold Mining Co.	New Westminster	2,300,000	23,000	100
Anglo-American Gold & Platinum Hydraulic Mining Co.	Vancouver	600,000	6,000	100
B.C. Gold Dredging Co.	"	250,000	50,000	5
Minnesota Silver Co.	New Denver	1,500,000	150,000	10
Columbia Mining Co.	Seattle, U.S.A.	1,000,000	1,000,000	1
Horseshy Gold Mining Co.	San Francisco	1,000,000	10,000	100
Provincial Mining & Dredging Co.	Vancouver	1,300,000	100,000	10
Scott Mining Co.	Seattle, U.S.A.	1,000,000	1,000	100
American Development Co.	Chicago, U.S.A.	100,000	1,000	100
North Star Mining Co.	Vancouver	100,000	1,000	100
Canadian Pacific Mining & Milling Co.	Minneapolis	500,000	500,000	1
Styne Creek Gold Mining Co.	Vancouver	200,000	40,000	5
Bear Lake Consolidated Mining Co.	Victoria	500,000	100,000	5
Kootenay & Columbia Prospecting & Mining Co.	Ottawa	40,000	400	100
Canadian Northwest Mining Co.	Helena, U.S.A.	2,000,000	400,000	5
Delta Mining & Development Co.	Vancouver	100,000		10c
Caledonia Consolidated Mining Co.	Spokane, U.S.A.	500,000		1

British Columbia Mining Papers.

Inland Sentinel—Kamloops, B.C.; weekly; 7 col. 8 pages; publishes Friday. Circulates in Cariboo, Lillooet, Yale, Kootenay; also in Victoria, Vancouver and New Westminster cities. Subscription, \$2 per year.

The Golden Era—Golden, B.C.; published by the Golden Era Publishing Co. Covers the entire East Kootenay District. Subscription price, \$2 per annum.

The Prospector—Rossland, B.C.; published by W. D. Pratt. Subscription price, \$2 per annum.

The Ledge—New Denver, B.C.; published by R. T. Lowry. Covers the Slocan District, and circulates generally in West Kootenay. Subscription price, \$2 per annum.

The Claim—Kaslo, B.C.; published every Saturday by R. T. Lowry. Circulates generally in Kaslo-Slocan country. Subscription price \$2 per year.

B.C. Mining Journal—Ashcroft, B.C.; published Saturday by Messrs. Reynolds & Sroufe. Circulation covers Cariboo and Lillooet. Subscription price, \$2 per year.

The Advance—Midway, B.C.; published Mondays, by Norris & Co. Covers Osoyoos and South Yale. Subscription price, \$2 per year.

The Miner—Nelson, B.C.; published Saturdays, by the Miner Publishing Co., Chas. St. Barbe, managing editor. 4 pages, 6 columns. Subscription price, \$2 per year.

The News—Vernon, B.C.; published Thursdays, by News Publishing Co., J. A. McKelvie editor. Covers Okanagan. Subscription price, \$2 per annum.

Rossland Miner—Rossland, B.C.; published on Saturdays, J. R. Reavis, editor. Covers Trail Creek district. Subscription price, \$2 per year.

The Record—Rossland, B.C.; published Saturdays, by Elur C. Smith. Covers Trail Creek district. Subscription price, \$2 per year.

The Prospector—Fort Steele, B.C.; published every Saturday, by Prospector Co., A. B. Grace manager. Covers East Kootenay. Price, \$1.50 per year.

Table of Stage Distances.

	Miles.
Alberni from Nanaimo	57
Aldergrove from New Westminster	22
Alexandria from Ashcroft	185
Bakerville from Ashcroft	280
Beaver Creek from Nanaimo	16
Bonaparte Valley from Ashcroft	20
Bridge Creek from Ashcroft	85
Cache Creek from Ashcroft	6
Clayton from New Westminster	9
Clinton from Ashcroft	32
Clover Valley from New Westminster	13½
Coutlee from Spences Bridge	40
Cranbrooke from Windermere	87
Dog Creek from Ashcroft	132
Duck & Pringle from Savona	40
83-Mile House from Ashcroft	68
Elgin from New Westminster	12
Empire Valley from Ashcroft	18
Fairmont Springs from Windermere	15
Fort Steele from Windermere	75
Hall's Prairie from New Westminster	19½
Hanceville from Ashcroft	220
James Island from Victoria	12
Lac La Hache from Ashcroft	100
Lansdowne from Enderby	6
Lillooet from Clinton	47
Mamette Lake from Kamloops	60
Saanich from Victoria	16
Okanagan Mission from Enderby	61
Okanagan from Enderby	18
150-Mile House from Ashcroft	135
Pavilion from Ashcroft	45
Quesnelle from Ashcroft	230
Quilcher from Kamloops	50
Rockford from Kamloops	35
Rockford from Spences Bridge	75
Rocky Point from Victoria	22
70-Mile House from Ashcroft	55
Soda Creek from Ashcroft	165
Sooke from Victoria	26
South Saanich from Victoria	13
Stanley from Ashcroft	265
Surrey Centre from Westminster	11½
Vernon from Enderby	26
Wasa from Windermere	64

Mines in British Columbia.

CARIBOO.	
NAME.	PLACE OF OPERATION.
Horsefly Hydraulic Mining Co.	Horsefly
Cariboo Hydraulic Mining Co.	Quesnelle Forks
Quesnelle River Hydraulic Mining Co.	Quesnelle River
Slough Creek Mining Co.	Slough Creek
Bonanza.	Lower Lightning Creek
Forest Rose.	Williams Creek
Van Winkle & South Wales.	Lightning Creek
Waverly.	Grouse Creek
CASSIAR.	
Placer Claims of McDame and Dease Creeks.	
COMOX.	
Union Colliery.	Union
EAST KOOTENAY.	
Bobbie Burns.	McMurdo District
International.	McMurdo District
Mogul.	Mount Stephen
North Star.	St. Mary's River
Sullivan Group.	Near Fort Steele
Wild Horse Creek, Perry Creek and Moyie River Placers	Near Fort Steele
WEST KOOTENAY.	
Lanark and Maple Leaf.	Illecillewaet
Silver King.	Nelson
Poorman.	Nelson
Number One.	Ainsworth
Highland.	Ainsworth
Black Diamond.	Ainsworth
Skyline.	Ainsworth
Alpha.	New Denver
Slocan Star.	Sandon
Idaho.	Three Forks
Eureka.	Kaslo
Wellington.	Kaslo
Northern Belle.	Kaslo
Surprise.	Kaslo
Alamo.	Three Forks
Reco.	Cody
Noble Five.	Cody
War Eagle.	Rossland
Le Roi.	Rossland
Josie.	Rossland
St. Elmo Cliff.	Rossland
Iron Horse.	Rossland
Evening Star.	Rossland
Blue Bell.	Pilot Bay
White Grouse Mountain Group.	Pilot Bay
LILLOOET.	
Lillooet Hydraulic Mining Co.	Fraser River
Bridge River Gold Mining Co.	Bridge River
Vancouver Enterprise Mining Co.	Cayoosh Creek
NANAIMO.	
Nanaimo Collieries.	Nanaimo
WELLINGTON.	
Wellington Collieries.	Wellington
YALE.	
Van Winkle Consolidated.	Lytton
Glen Iron Mine.	Cherry Creek
Rosebush (Cinnibar).	Savona
Columbia Gold Mining Co.	Hill's Bar Flats
Yale Gold Dredging Co.	Yale
Morning Star.	Fairview
Cariboo & Amelia.	Camp McKinney
Stemwinder.	Camp Greenwood
Lincoln.	Camp Central
Anglo-American (placer).	Similkameen River
Gold Point Hydraulic.	Similkameen River
Gold Gravels Exploration Co.	Similkameen River
Stevens Gold & Platinum Hydraulic Co.	Granite Creek

THE

Dominion Developing & Mining Company

LIMITED LIABILITY.

Incorporated under the Companies' Act, Consolidated Statutes of British Columbia, 1890, and Amending Acts—whereby the liability of shareholders is limited to the amount of their shares at any time held by them.

CAPITAL \$500,000

IN 500,000 SHARES OF \$1.00 EACH. - - - PAYABLE IN FULL WHEN MAKING APPLICATION.

DIRECTORS.

JONATHAN MILLER, Esq., Postmaster—President; Vancouver.
 JOHN HENDRY, Esq., President, The B.C. Mills Timber and Trading Company—Vice President; Vancouver.
 JOHN T. CARROL, Esq., M.D., Reeve of North Vancouver—Vancouver.
 B. DOUGLAS, Esq., Capitalist—New Westminster.
 JNO. J. BANFIELD, Esq., Insurance and Financial Broker—Vancouver.
 JNO. MACQUILLAN, Esq., Manager the Dominion B. and L. Ass'n for B.C.—Vancouver.

SOLICITOR.

A. WILLIAMS, Esq., M.P.P.—Vancouver.

BANKERS.

THE BANK OF BRITISH NORTH AMERICA—Vancouver.

CONSULTING ENGINEER.

W. PELLEW HARVEY, F.C.S.M.N. Eng. Inst., M.M.E.

AUDITOR.

STANLEY JAMES, Auditor for City of Vancouver.

SECRETARY AND OFFICES.

J. J. BANFIELD—411 Cordova Street, Vancouver, B.C.

The Directors invite applications for 100,000 shares of fully paid up stock. Further information and necessary forms can be had on application. Correspondence Solicited. Registered Cable Address: **Banmac, Vancouver, B.C.**

North Saanich Coal Co.

LIMITED LIABILITY.

Registered under the Companies' Act and Amending Acts.

In 2,500 Shares of \$10.00 each.
CAPITAL, - - - - - \$25,000.00.

The first issue to the public will be 1,000 shares payable:
 Fifty cents per share on Application. Fifty cents per share on Allotment.
 Fifty cents per share at one month after allotment.

And the balance (if required) as may be necessary, in calls of not more than fifty cents per share each, and at intervals of not less than one month between the calls.

PROVISIONAL DIRECTORS

THOS. W. PATERSON, SUPT. VICTORIA & SYDNEY RAILWAY	- VICTORIA, B. C.
WILLIAM TEMPLEMAN, PUBLISHER,	- VICTORIA, B. C.
E. B. MARVIN, SHIP CHANDLER,	- VICTORIA, B. C.

BANKERS

BANK OF MONTREAL,	- VICTORIA, B. C.
-------------------	-------------------

SECRETARY

BEAUMONT BOGGS,	- VICTORIA, B. C.
-----------------	-------------------

28 BROAD STREET, P.O. BOX 126.

PROSPECTUS

The Company has been incorporated for the purpose of taking over certain bonds of Coal rights and privileges pertaining thereto of a portion of the District of North Saanich and for prospecting the property so bonded by boring or other means.
 The property bonded consists of about 2,000 acres extending from Shoal Bay on the East Coast to Boulder Point on the West Coast of the Saanich Peninsula, about 20 miles from the City of Victoria, and within three miles of the terminus of the Victoria & Sidney Railway.
 At present the only development work that has been done is the sinking of a shaft on the shore at Shoal Harbour to a depth of 20 feet into a seam of Coal and Shale. Coal croppings have been found at Deep Cove and near Coal Point, and there is every indication that Coal will be found at no very great distance from the surface. It is needless to point out the advantages to be derived and the profits to be gained by the finding of a good seam of Coal so near the City with an alternative transportation route by Rail or Water.
 All the land bonded carries with it Coal rights, so that no Royalty is payable to the Government on Coal thereunder.
 The shipping facilities are excellent; the largest ships can load with safety within "Shoal Harbour" or "Deep Cove".
 It is estimated that should Coal be struck at a depth of 500 feet, the actual cost of mining and transportation would not exceed \$2.00 per ton, while at the present time the article is bringing \$6.00 per ton in the local market at Victoria.

CAPITAL.

The first issue of stock to the public will be only \$10,000.00, as it is presumed that such will so far advance and demonstrate the value of the scheme as to enable further issues of shares to be either allotted to the shareholders on the list on advantageous terms, or placed on the market at a substantial premium.
 No cash will be paid for the transfer to the Company of the Bonded rights, but the whole of the purchase price—\$2,000.00—will be taken by the Vendors in fully paid up Shares of the Company, the Vendors thus testifying their faith in the enterprise.
 To enable the citizens of Victoria to secure an interest in this undertaking and assist in the development—which must be of great benefit to all—the shares have been placed at the price of \$10.00 each. The first issue will only be 1,000 shares or \$10,000.00.
 Payment on shares will be made as follows:—5 per cent. on application, 5 per cent. on allotment, the remainder in calls of 5 per cent. within not less than 30 days between each call.

P. O. BOX 126.

OPPOSITE DRIARD.

BEAUMONT BOGGS

Fire Insurance. Life Insurance.
 Notary Public for British Columbia. Commissioner for Nova Scotia.
 Secretary "North Saanich Coal Company, Limited."

MINING BROKER, FINANCIAL AGENT.

CORRESPONDENCE SOLICITED.

VICTORIA

E. G. PRIOR & CO.

[LIMITED LIABILITY]

Importers of

Iron, Hardware, Agricultural Machinery, and Vehicles of all Kinds.

Sole Agent for the Planet, Jr., Farm and Garden Implements.

WAREHOUSES AT VICTORIA AND KAMLOOPS.

Write for Special Catalogue and Prices.

PIONEER STEAM COFFEE & SPICE MILLS

Stemler & Earle

Established 1895.

Manufacturers of

COFFEE
 SPICES
 COCOA
 CREAM TARTAR
 MUSTARD and
 BAKING POWDER



Pembroke St., bet. Government and Douglas
 VICTORIA, B.C.

PERRY & TURNER

Builders Hardware
 Sheet Metal Works

Stoves = Tinware
 Graniteware

Manufacturers of
AIR TIGHT HEATERS

Sky-Lights and Roofing

AGENTS FOR
 Buck's Happy Thought Ranges
 Cockshutt Plows and Harrows

P. O. Box 665. 42 Johnson St., VICTORIA

MINING PROPERTIES for sale in Cariboo, Lillooet, Similkameen, Kootenay, Big Bend and other districts of the Province.

C. S. DOUGLAS & CO.

Mining, Financial and Real Estate Brokers

139 CORDOVA ST., - VANCOUVER, B.C.

Cable Address: "Stanford," Vancouver.

MINING SHARES BOUGHT AND SOLD. Good Real Estate Investments in Vancouver, Kaslo, Nelson, Rossland, Ashcroft.

NICHOLLES & RENUOF LIMITED.

Importers of

IRON, HARDWARE, MINING MACHINERY of all kinds, Etc.

61 YATES STREET. VICTORIA.

M. I. M. E. M. I. M. M.

R. C. CAMPBELL-JOHNSTON

Four years' experience in B.C.

Mining Engineer, Metallurgist and Assayer

GRANVILLE STREET, VANCOUVER

PRINTERS—For sale, on easy terms, share in "Vernon News." To a printer with taste for shooting and fishing, here is a chance to make a profitable living and a pleasant home.—Address Box 95, Vernon, Okanagan.

R. E. PALMER, B.A. Sc.

A.M. CAN. SOC. C.E. P.L.S.

CIVIL, HYDRAULIC & CONTRACTING ENGINEERS

All classes of structures designed, superintended or erected. Examinations, reports and estimates. Mine development work reported or contracted for. Mineral claims surveyed in any part of British Columbia. Agent for owners. References furnished.

Offices: ROGER'S BLOCK, HASTINGS ST., VANCOUVER.

R. P. RITHET & Co.

Wharf St., Victoria.

Wholesale

Merchants

SHIPPING AND INSURANCE

AGENTS.

Proprietors of Victoria Wharf, Outer Harbor, Columbia Flouring Mill, Enderby.

AGENTS FOR

Moodyville Lands and Saw Mill Co., Burrard Inlet
 Victoria Canning Co. of British Columbia
 Fraser River, Skeena River and River's Inlet Canneries
 Skeena River Packing Co., Skeena River
 Lowe Inlet Packing Co., Lowe Inlet
 Giant Powder Co.—Works, Cadboro' Bay
 Pacific Coast Steamship Co., San Francisco
 Puget Sound Tugboat Co., Port Townsend
 Queen Insurance Co. of America—Fire
 English and American Marine Insurance Cos

LLOYD'S AGENCY - HAWAIIAN CONSULATE

VICTORIA.

For Sale

A Stock of Mining Tools and Implements, including two Portable Engines 15 & 20 H.P., [Wood burning]. Can be had at a very great Bargain.

Apply to

HEISTERMAN & CO.,
 Victoria, B.C.

M. R. SMITH & CO.

Established 1858.

Biscuit

Manufacturers

Gold Medal awarded at Royal Agricultural Exhibition, 1895.

VICTORIA.

For Mining Supplies *Send your orders or Write for prices to*
Thos. Dunn & Co., Ltd.

We have the Largest Stock of this class of Goods on the Coast, Steel Picks, Shovels, Hammers, Coal, Wire Rope, Manila Rope, Blocks, Dynamite, Fuse Caps.

VANCOUVER

GEO. D. SCOTT,

Kootenay : Mining : Broker.

SHARES IN ALL LEADING COMPANIES ON SALE.

Mining Companies Promoted. Good Opportunities for Investment in Opening Up New Claims. None But the Best Prospects Handled.

Thoroughly Conversant with all Mining Districts.

305 CORDOVA ST., VANCOUVER, B.C.

- SOAP -

Standard - Soap - Works

Findley & Co., Props.

133 Hastings St.

VANCOUVER.

Oppenheimer Bros.

Wholesale Grocers.

VANCOUVER.

Old Fountain Hotel

VICTORIA LAGER BEER ON DRAUGHT.

Choice Wines, Liquors and Cigars.

R. MINATY, Prop.

33 Cordova St.

VANCOUVER, B.C.

Transportation Companies.

CANADIAN PACIFIC NAVIGATION CO. (LIMITED.)

TIME TABLE NO. 27.

Taking Effect June 21st, 1895.

VANCOUVER ROUTE.

VICTORIA TO VANCOUVER daily except Monday, at 2 o'clock.
VANCOUVER TO VICTORIA daily except Monday, at 13 o'clock or on arrival C.P. Railway No. 1 Train.

NEW WESTMINSTER ROUTE.

Leave Victoria—For New Westminster, Ladner's Landing and Lulu Island, Sunday at 23 o'clock; Wednesday and Friday at 7 o'clock. Sunday's steamer to New Westminster connects with C.P.R. Train No. 2 going East, Monday.

For PLUMPER PASS—Wednesdays and Fridays at 7 o'clock.
For MORESBY and PENDER ISLANDS—Fridays at 7 o'clock.

Leave **NEW WESTMINSTER**—For **VICTORIA**, Monday at 13:15 o'clock. Thursday and Saturday at 7 o'clock.
For PLUMPER PASS—Saturday at 7 o'clock.
For Pender and Moresby Islands—Thursday at 7 o'clock.

FRASER RIVER ROUTE.

Steamer leaves **NEW WESTMINSTER** for **CHILLIWHACK** and way landings every Tuesday, Thursday and Saturday at 7 o'clock during river navigation.

NORTHERN ROUTE.

Steamships of this Company leave Victoria for Fort Simpson via Vancouver and intermediate ports on the First (1st) and Fifteenth (15th) of each month. If sufficient inducements offer will call at points on the West Coast and Queen Charlotte Islands.

BARCLAY SOUND ROUTE.

Steamer **MAUDE** leaves Victoria for Alberni and Sound ports the 10th, 20th and 30th of each month. The Company reserves the right of changing this Time Table at any time without notification.

G. A. CARLETON,

JOHN IRVING,

GENERAL AGENT.

MANAGER.

UNION STEAMSHIP CO. B.C.,

LIMITED.

VANCOUVER.

VANCOUVER TO NANAIMO—SS. **CUTCH** leaves C.P.R. Wharf daily, (Sundays excepted) at 1:15 p.m. Cargo at Union S.S. Co.'s Wharf at 11 a.m.
NANAIMO TO VANCOUVER—SS. **CUTCH** leaves daily (Sunday excepted) at 8 a.m.

NORTHERN SETTLEMENTS.

SS. **COMOX** leaves U. SS. Wharf every Monday for Port Neville at 11 a.m., Bute Inlet every six weeks, calling at all way ports. Will proceed to any part of the Coast when inducement offers.

MOODYVILLE AND NORTH VANCOUVER FERRY.

Leave **Moodyville**—7, 8:30, 11:45 a.m.; 2:30, 5 p.m.
 Leave **Vancouver**—8, 10:15 a.m.; 1:15, 3:30, 6 p.m.
 Late trip Saturday and Sunday.
 Leave **Moodyville**—7 p.m. Leave **Vancouver** 7:30 p.m.

Steamers and Scows always available for excursions. Towing and Freighting Business. Storage accommodation at Co.'s Wharf.

H. DARLING,

Manager.

Telephone 94.

P. O. Box 771

THE COLUMBIA AND KOOTENAY STEAM NAVIGATION CO. LTD.

REVELSTOKE ROUTE—Str. "Nakusp."

LEAVES Revelstoke, southbound, Mondays and Thursdays at 7 p.m.; at 1 a.m. for all points in West Kootenay and the south.

LEAVES Robson, northbound, Wednesdays and Saturdays at 8 p.m. for all points east and west via the C.P.R.

NORTHPORT ROUTE—Str. "Nakusp."

LEAVES Robson, southbound, for Trail Creek and Northport Tuesdays and Fridays at 6 p.m.

LEAVES Northport, northbound, Wednesdays and Saturdays at 1 p.m.

Stages run in connection with steamer from Trail Creek Landing to Rossland.

KASLO ROUTE—Str. "Nelson."

LEAVES Nelson for Kaslo: Tuesdays at 5:40 p.m.; Wednesdays at 4 p.m.; Thursdays at 5:40 p.m.; Saturdays at 5:40 p.m.

Connecting on Tuesdays, Thursdays and Saturdays with N. & F. S. Ry., for Kaslo and Lake points.

LEAVES Kaslo for Nelson: Mondays at 4 a.m.; Wednesdays at 4 a.m.; Thursdays at 8 a.m.; Fridays at 4 a.m.

Connecting on Mondays, Wednesdays and Fridays with N. & F. S. Ry., for Spokane.

Close connections with Columbia & Kootenay Railway at Nelson for points north and south.

BONNER'S FERRY ROUTE—Str. "Nelson."

LEAVES Nelson for Bonner's Ferry Mondays and Fridays at 8 a.m.

LEAVES Kaslo for Bonner's Ferry Mondays and Fridays at 4 a.m.

LEAVES Bonner's Ferry for Pilot Bay, Nelson, Ainsworth and Kaslo on Tuesdays and Saturdays at 2 a.m.

Connections with east and westbound trains on the Great Northern Railway.

The right is reserved to change this schedule at any time without notice.

For tickets, rates, etc., apply at Company's office, Nelson.

T. ALLAN,

SECRETARY.

J. W. TROUP,

MANAGER.

BRITISH COLUMBIA EXPRESS CO., LTD.

STAGES FOR CARIBOO.

4 o'clock. The regular Weekly Stage for all points in **CARIBOO AND LILLOOET** leaves Ashcroft every Monday morning at 4 o'clock. Travelling by daylight only and making about 70 miles a day, each way, lying over a day at Barkerville.

ASHCROFT TO CLINTON, Mondays, Wednesdays and Fridays. Returning Tuesdays, Thursdays and Saturdays, Ashcroft for Lillooet, Mondays and Wednesdays.

SPECIAL STAGES furnished on proper notice and at reasonable rates. For a party of five or more persons, regular stage fares only will be charged. These specials make regular stage time, changing horses along the route. General express matter carried by regular stages. Fast freight by specials. For further information, apply to

B.C. EXPRESS CO., LTD., Ashcroft, B.C.

Making It Pay.

THE SECRET OF MAKING IT PAY lies in grasping every offered opportunity. Mission City takes the lead by offering more liberal and better opportunities to the Manufacturer than any place in British Columbia. We are alive to these advantages, and mean to tell them to you—being in the centre of the finest farming and fruit-growing district in British Columbia—on the main line of the Canadian Pacific Railway, and on the only line of railway from the Coast to the United States, with direct steamer connection by way of Fraser River, thereby placing the Manufacturer in a better position to compete and supply the Local, Foreign or Mining trade than any other point—at a less cost. We might put these facts in a clearer, stronger, and more convincing manner, but this space will not permit it; besides we prefer to have a direct talk with you on any particular subject required. We are willing that every business man looking for a suitable manufacturing site shall have our services in this matter. They are yours for the asking. We want to tell you why Mission City is a good place to locate. A large Linseed Oil Mill has just located at Mission City, and several other propositions are being considered. If interested, we want your address to tell you why a Condensed Milk Factory would pay well; or if interested in a Sugar Beet Refinery, Starch, Woollen or Pulp Mills, or a Salmon Cannery, we can offer you such inducements that it will pay you to investigate our offers. Our knowledge of Vancouver District ought to be of interest to you. If we have left any point unsaid, or you have a proposition to make, we would be glad to hear from you. If your particular line of business is not suited to this locality, we tell you so frankly. That's one of the chances we take. But our services are yours for the asking—with maps.

F. S. TIMBERLAKE & CO.,
Special Agents.

VANCOUVER, B.C., 22 Cordova Street. MISSION CITY, B.C., Horne Avenue.

CORRESPONDENCE requested from a reliable LONDON BROKER who can obtain capital for developing townsite property.

JUST OUT

Handbook of - -
- - British Columbia
MINING LAWS

— For —

MINERS, PROSPECTORS AND INVESTORS

Compiled by James Brady, Mining Engineer, and J. H. Brownlee, Financial Agent, both of Victoria, B.C., from the B.C. Mineral and Placer Acts 1891 and Amendments 1892, 1893, 1894 and 1895.

PRICE 25 CENTS

Address

J. H. BROWNLEE

Board of Trade Building, Victoria.

Cable Address: "Cortes," Vancouver. P.O. Box 104.

McKinnon, DeBeck & Co

MINING BROKERS AND AGENTS

611 Hastings Street.

VANCOUVER

Mining Companies Floated and Organized.

Properties Bonded and Reported on
for Foreign Syndicates.

Reports Furnished by the Most Competent
English and American Mining
Engineers.

Having been residents of the Province for the last twenty five years, and having been continuously exploring and locating, we are therefore in a position to give the most reliable information possible.

Do You Read

Occasionally



If you do and desired to keep informed of
the happenings everywhere you want

DAILY **THE TIMES** TWICE-A-WEEK

BRITISH COLUMBIA'S
BEST NEWSPAPER.

Bright!
Newsy!
Independent

The Twice-a-week Times Costs but \$2.00 per year
(in advance) and is incomparably the Best of
All Provincial Twice-a-week's.

SUBSCRIBE NOW.

Address: **TIMES PRINTING & PUB. CO., LTD.**
Broad Street, Victoria, B.C.



CLARKE & STUART.



Booksellers, Stationers and Newsdealers

Books on Mining and Mineralogy. Blank Books and Office Stationery. School Books and School Supplies. Engineers' Supplies and Artists' Material.
Pianos, Organs and Musical Instruments. Playing Cards and Poker Chips.
Subscriptions Received for any Magazine or Newspaper published. Xmas Cards, Fancy Goods, Etc.
Mail Orders Promptly Attended to. Correspondence Solicited.

28 CORDOVA ST., VANCOUVER.

E. J. McFEELY,
President.

ESTABLISHED 1886.
INCORPORATED 1895.

R. P. McLENNAN,
Sec. Treas.

McLENNAN, McFEELY & CO., LTD.,

WHOLESALE DEALERS IN SHELF AND HEAVY HARDWARE

Blacksmiths' Supplies. Carriage Wood Work a Specialty. Steel and Cast Ranges. Granite and Tinware. Grates and Tiling. House Furnishings.
MINING, MILL, RAILROAD CONTRACTORS AND LUMBERMENS' SUPPLIES. PLATE GLASS, PAINTS, OIL, EXPLOSIVES.

122 CORDOVA STREET, VANCOUVER.

If our traveller has not yet called on you write us for prices. All Mail Orders have prompt attention.

EDWARDS BROS

Amateurs' Supplies, Premo and Kodak Cameras.
Developing and Printing from Plates and Films.
Bromide Enlarging, Lantern Slides, Etc.

PORTRAIT and LANDSCAPE

PHOTOGRAPHERS

N.B.—Xmas Card Photos. Book Souvenirs of Vancouver and Stanley Park.
Mail Orders Promptly Attended To.

534 CORDOVA STREET

VANCOUVER

R. D. KINMOND & CO.

Mining - - Real Estate

✧ Insurance ✧

Stocks and Shares Dealt in

Mining Properties for Sale

P. O. Box 606

609 HASTINGS ST.

VANCOUVER

THE MANOR HOUSE

VANCOUVER

IS NOW OPEN. FIRST-CLASS IN EVERY RESPECT

RATES: \$2 PER DAY AND UPWARDS.

THOS. P. REED, - - Proprietor.

WATCHES,

SILVERWARE,

CLOCKS

Diamond Settings, Wedding Rings and special designs
in Jewellery made to order. Mail orders solicited.

GEO. C. TROREY

Manufacturing - Jeweller - and - Watchmaker

CORDOVA STREET, VANCOUVER

NORTH AMERICAN LIFE ASSURANCE CO.

Head Office - - - Toronto, Ontario.

—President—

JOHN L. BLAIKLIE, Esq.

—Vice Presidents—

HON. G. W. ALLEN. J. K. KERR, Esq., Q.C.

—Managing Director—

W. McCABE, L.L.B.

(Fellow of the Institution of Actuaries and Fellow of the Statistical Society of Great Britain.)

One of Canada's popular, prosperous and progressive companies. The financial position that this Company has attained is not excelled by any other Home Company.

The plans offered are exceedingly attractive to all classes.

ALL PROFITS are distributed among policy holders, and the profit earning power is not exceeded to-day by any other Company.

Full particulars cheerfully furnished on application to any of the Company's Agents.

S. G. FAULKNER,
Provincial Manager for British Columbia
522 Hastings St. Vancouver.

Victoria Agents, Special Agent
LEE & FRASER W. C. MITCHELL, Vancouver

BAILEY BROS. Co., Ltd.

WHOLESALE AND RETAIL

Booksellers ^{AND} Stationers

Office and General Stationery

Novels and Books of all kinds.

Picture Framing, Artists' Materials,
Cameras, Kodaks and Photo Supplies
of all kinds.

LANDSCAPE - PHOTOGRAPHERS

Views of C.P.R. from Ocean to Ocean

Mail orders promptly attended to

VANCOUVER and KAMLOOPS

B.C. FRUIT, CANNING & COFFEE CO.,

LIMITED.

(Established 1890.)

MANUFACTURERS AND
WHOLESALE DEALERS IN

Jams, Jellies, Marmalades,
Coffees, Spices, Flavoring
Extracts, Sauces, Ketchups,
Vinegar, Pickles, Etc.

Coffee Roasting and Grinding Mills of the Latest
Improvement and Patented.

All Goods bearing the Company's Trade Mark, the
"Sun," and marked Pure and Guar-
anteed in every way.

Buy "Sun Brand" Goods and you get the Best Value
in the Market,

ROOM 6, INNS OF COURT

VANCOUVER.

THE GREAT WEST STOCK YARDS,

DRESSED MEAT AND PACKING COMPANY

ALL KINDS OF



LIVE AND DRESSED MEATS

The only exclusive wholesale meat establishment in B.C.

PACKING HOUSE AT CENTRAL PARK, ON
N.W. & V. TRAMWAY.

VANCOUVER

P.O. Box 347.

L. M. LAPOINTE, Manager

Nanaimo Saw Mill and Sash and Door Factory

A. HASLAM, PROPRIETOR.

Office: MILL STREET, - - NANAIMO, B.C.

A COMPLETE STOCK OF

Rough and Dressed Lumber, Shingles, Laths and Pickets, Doors, Windows, Blinds,
Moulding, Turning, Scroll Sawing and all kinds of Wood Finishing.

Cedar, White Pine and Redwood.

Post Office Box 35. Harbor and Outside Towing Done at Reasonable Rates. Telephone Call 1-9.

DOERING & MARSTRAND'S BREWING COMPANY

Brewers and Bottlers of the
Celebrated

Alexandra Export Lager Beer

Alexandra Porter

Alexandra English Ale

P. O. ADDRESS:

Box 25, Mount Pleasant, Vancouver

CAN BE SPECIALLY RECOMMENDED.

SHELTON & CO

507-514 HASTINGS ST.

VANCOUVER

The Largest Stock of

FURNITURE

On The Mainland.



Carpets

Linoleums

Window
Shades

Baby
Carriages

Iron Bedsteads

SEND FOR
CATALOGUE

Cable Address: "BRITISH; VANCOUVER."

P. O. Box, 177

BAKER, CRAWFORD & CO.

407 Cordova St. = = VANCOUVER.

MERCHANTS, IMPORTERS AND SHIPPING AGENTS

—REPRESENTED BY—

*Baker Brothers & Co.,
Liverpool, Eng.*

—FREIGHT AGENTS FOR—

*The Regular Line of Sailing Vessels
From U. K. Ports to Vancouver, B.C.*

—IMPORTERS OF—

*Liverpool Salt.
Portland Cement.
Fire Bricks and Clay.
Smelting Coke
Morgans, Battersea Crucibles
and Tinplates.*

ORDERS EXECUTED FOR ANY DESCRIPTION
OF MERCHANDISE.

—SOLE AGENTS FOR B.C.—

*W. D. & H. O. WILLS, BRISTOL, ENGLAND,
CUT TOBACCOS AND CIGARETTES.*

"OVG" SCOTCH WHISKY.

Unequalled for Quality, Purity and Excellence.

—Importers of—

*Gooderham & Worts Canadian
RYE WHISKIES.*

*W. B. DICK & CO., LIVERPOOL, ENG.,
LINSEED OILS.*

OSMUND, SKRINE & CO.



WHOLESALE

Produce : and : Commission

MERCHANTS



BUTTER, EGGS, CHEESE.

CHOICE CALIFORNIA FRUITS.



121 to 123 Water St., VANCOUVER.

MARCUS WOLFE

INSURANCE, LOANS, REAL ESTATE.
FARM LOANS A SPECIALTY,

AGENCIES REPRESENTED.—Canada Permanent Loan and Savings Co., Toronto,
Citizens' Building Society of Nanaimo;
Scottish Union and National Insurance Co.;
Hartford Fire Insurance Co.;
Union Fire Insurance Co., of London, Eng.;
Eastern Fire Insurance Co., of Halifax;
Phoenix Fire Insurance Co., of London, Eng.;
Sun Life Assurance Co., of Canada.
Globe Savings and Loan Co., Toronto.
London Guarantee and Accident Co.

P.O. BOX 17.

JOHNSTON BLOCK, NANAIMO.

T. M. CRAIG

W. S. CRAIG

Nanaimo Steam Carriage Works

CRAIG BROS., PROPRIETORS.

Carriages, Buggies, Carts and Wagons,
Farming Implements, Sleighs, Cutters.

GENERAL BLACKSMITHING AND SHIPSMITHING A SPECIALTY

All sorts of Mining Tools made to order at shortest notice. Mention
this paper when you write.

P. O. Box 103.

NANAIMO.